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Sequestering Livelihoods: REDD+, Autonomy and Adaptation on a Colombian Forest Frontier

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Sequestering Livelihoods: REDD+, Autonomy and Adaptation on a Colombian Forest Frontier

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Abstract

Sequestering Livelihoods: REDD+, Autonomy and Adaptation on a Colombian Forest Frontier

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REDD+, or Reducing Emissions from Deforestation and forest Degradation "Plus", is a set of activities around the world aimed at providing financial incentives to individuals, communities, jurisdictions, and nations to protect their forests and thereby mitigate climate change. The concept was initially developed within the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) in 2005, and has since been integrated into the UNFCCC agreements, multilateral and bilateral aid agreements, voluntary and compliance carbon markets, and the integrated conservation and development work of many NGOs. REDD+ has evolved over time, such that today, there are thousands of activities taking place that fall under the broad rubric of REDD+ in several forms, including project REDD+, jurisdictional REDD+ and national REDD+.

REDD+ activities are gaining attention from the growing field of companies, jurisdictions, and countries setting net neutrality goals to meet over the next thirty years. Most of these organizations plan to achieve net neutrality by "offsetting" a portion of their carbon emissions with purchases of carbon credits (also known as "verified carbon units") through programs like REDD+. Understanding REDD+'s impacts on forest cover and forest communities is critical for assessing whether REDD+ is likely to achieve its climate change mitigation goals.

This dissertation responds to this need by assessing REDD+ projects along the Pacific Coast of Colombia. It relies on mixed social research methods of ethnography, semi-structured interviews, and household surveys focused on two communities established around neighboring rivers – one that participated in USAID's "BIOREDD+" program, and one that started talks with USAID and ultimately declined to participate. The dissertation explores the consequences of the project's implementation in community-titled Afrodescendant territories. The project unfolded within the broader context of these communities' struggles for autonomy, internal governance, and reliable livelihoods, even as they were buffeted by waves of violence around them. The field research took place between 2015 and 2018, just after the formal BIOREDD+ project had concluded.

Contrary to fears from some global REDD+ observers that REDD+ programs might lead to forced evictions of forest-dependent people from their lands to make way for conservation, BIOREDD+ had a relatively small footprint in the project community. The livelihood projects that USAID and its contractors brought in to provide alternatives to local timber harvesting had little lasting effect and largely failed to include those most dependent on timber harvesting. Selective timber harvesting, while relatively constrained in scale due to limits of capital, weather, and forest accessibility, maintained a steady pace throughout the initial project period, from 2012-2015. No project activities were implemented to actively restrict this harvesting.

Nevertheless, the demands of BIOREDD+ distracted community leaders from more core duties of governing and forced them to prioritize the goals and logistical concerns of BIOREDD+ in their interactions with the community. REDD+ demands on leaders were greater than those of many other integrated conservation and development projects because of the risks and technical complexity of REDD+. Surveys revealed that, in the community participating in REDD+, community members had less trust in, and participated less in, community governing bodies and other community projects than in the neighboring community that had opted out of the program. This was attributable not only to REDD+, but also to the preceding conservation and development projects that had dominated internal governance activities since the community received title to its territory in the late 1990s. This weak community governance allowed outsiders to take advantage of natural resources in the territory, undermining the goals of REDD+.

Despite the apparent lack of reduction in deforestation and degradation associated with BIOREDD+, millions of verified carbon units were credited to the projects. This surprising result is attributable primarily to the reference areas used in the program – that is, the larger areas beyond the project zones used to develop baseline deforestation rates against which change in the project communities would be compared. Those reference areas had greater historical levels of deforestation than the project area. Based on conversations with project contractors and technical experts, it became apparent that hiring the right technical experts to design and run the models used to develop project baselines in BIOREDD+ turned out to be more critical to generating carbon credits than anything happening in the Colombian Pacific region.

The credits created through the BIOREDD+ program have been purchased by petroleum and coal companies to offset their carbon emissions and thereby avoid paying the country's carbon tax. Despite the sale of the carbon credits, the community has not yet received any of the funds owed them, a decade after the start of BIOREDD+. There is a possibility that the communities participating in the BIOREDD+ project will receive these funds from carbon credit sales in the future, and might use them to reduce deforestation. These potential impacts could not be assessed, however, since no funding had been received at the time of this dissertation's publication. This research suggests, however, that there is a risk that as demand for carbon credits increases, REDD+ credits will continue to be created and sold for offsetting real fossil fuel emissions despite a failure to reverse deforestation trends.

An additional surprising finding from this work is that certain requirements for REDD+ programs to validate project additionality – that is, the assurance that any changes in deforestation are a result of the project, and would not have occurred in the absence of the project – may not only have little effect, but may also be counterproductive. Increasing the technical complexity of these projects, whether in an attempt to make them more rigorous, or primarily to suggest to carbon credit verifiers and purchasers that they are more rigorous, has local consequences. These complexities are more demanding for community leaders to manage. They also lead to elevated costs to pay for technical experts and dozens of accompanying technical studies, which means that the communities participating in the projects get a smaller cut of the sale of the credits generated. These additional requirements may achieve little in the end, given that REDD+ crediting will always depend heavily on the baselines and reference areas, which are inherently a subjective construction.

This work contributes to a growing body of research on the implications of a shift toward neoliberal, market-based conservation by illuminating several aspects of the incentive structures inherent in voluntary carbon markets. The first is that the rules of these markets are set by the

same groups who stand to benefit from the rules. The technical nature of the rules makes it difficult for anyone without substantial technical training to evaluate them or to determine how well they are being followed. The more complex the technocrats make these rules, the greater the opportunities they create for themselves. Moreover, the more removed the calculated emission reductions are from the project activities, such as in the case of REDD+, where trees left uncut in remote regions are translated into carbon credits, the more space there is for technocrats to manipulate the results of these calculations to their benefit. In addition, the ever-higher transaction costs of these projects call into question the efficiency value of using a market mechanism to reduce deforestation.

Second, there is no actor along the supply chain of credits that has an incentive to slow the creation of these credits. The primary threat to those constructing carbon markets and the credits transacted on them would be the collapse of the whole carbon credit market. Yet given that these actors are all benefitting from the market, and that the costs of the market's failure to transact credits that represent real reductions in emissions is borne by the masses – namely, all those affected by climate change – there is little likelihood of market collapse. As these same carbon market actors push to have carbon markets integrated into state, national and international policies, these risks may spread beyond the voluntary carbon market to weaken the primary levers that countries have for making strides against climate change: reducing emissions within their national borders through command and control policies.

Though this research showed that the BIOREDD+ projects did not present an acute risk to forest communities, this may be attributable to the particular characteristics of USAID being the project developer, as USAID has a primary mission of aiding these communities and was not driven by a profit motive. As carbon credits become more in-demand under new net neutrality goals, businesses looking to benefit from developing REDD+ projects, and not aid donors, will become the dominant participants in this arena. This will not only reduce further the percentage of benefits that communities receive from the projects, but may put them at greater risk of being forced to take actions against the will of some or many in the community. This presents the potential not only for human rights abuses, but for furthering internal conflict within forest communities, eroding the foundation of social relations on which forest governance is built.

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Chapter 1. Introduction

1 An Election

The air in La Hormiga was thick with tension. Oppressive humidity and pounding sun of late morning onto the tin roof above our heads in this tropical rainforest village did little to ease the strain. By the evening, this community would elect its governing board for the next four years. But for now, community members were vociferously debating who was eligible to participate in the elections.

In the packed "grand room" of the school at the top of the village's hill, overlooking the river along which the dozen villages of the community were situated, there was little veiling of meaning in these impassioned words. Without using his name, they all referred to one leader in particular – Julio. This young leader was well-positioned to win the position of "Legal Representative" for the community. This title came with great responsibility. Legal Representatives could, people were always quick to tell me, sign away the rights of the community to their land, or allow in industries that would destroy local livelihoods. They could skim off money from community off of any development projects for "their pocket." While in local regulations, these leaders were supposed to "simply" respond to the will of the community, community members needed to trust this person to act responsibly on their behalf.

Clearly some individuals in the room did not trust the candidate in question. They couched their concerns in technical terms: "He does not appear in the last community census," one past Legal Representative asserted. "He doesn't reside in the community." "He has been away for too long." These were violations of the internal regulations of the community and of the national law laying out the requirements for the governance of Afrodescendant communities in Colombia like this one. This was a technique I would see later in other Assemblies in other communities– internal regulations and specific clauses of Colombian laws and statutes leaned on to make arguments against individuals so as to depersonalize their concerns.

Yet behind words spoken onstage into crackling microphones, wires long rusted by the smothering humidity, more severe concerns about this candidate festered. A former Legal Representative explained privately to me, "He campaigned, and campaigning is anathema to the way leaders should be chosen here. Our leaders should be legitimate – called to lead by the people because of what they have done for the community in the past, not for what they promise for us in the future." Others questioned Julio's temperament for the job. He was too quick to anger, they suggested, and would drive others away from the community governing process with this temper. Yet left unspoken was perhaps the greatest concern other leaders held about this particular individual: they did not fully trust him to protect the community. He had grown up mostly in the more capitalistic world outside this community along the river (known henceforth as the "River", as in the local parlance), and they worried that he would bring the logics of that world to bear upon them. While he spoke convincingly with outsiders about the importance of preserving the unique traditions, cosmovision, and governance of his Afrodescendant community, community members worried he would push forward development projects that could challenge these practices.

Yet this embrace of new economic opportunities for the people of the River was precisely what made others in the community enthusiastic about Julio. The afternoon before the elections, a handful of local men sat around me in the shade of a small thatch-roofed hut by the river, sharing their guarded optimism– rather more optimism than this group had felt in recent years.

They were men who had come to depend on sources of local income – from cutting wood, fishing, or running errands for the guerilla army that had maintained a camp in the River's headwaters for some fifteen years. Today, timber was further away and the timber mill ran only sporadically. Fish and mammals for hunting had become more elusive, and their principal agricultural product for sale – the bright red peach palm fruits, or *chontaduro* – had been destroyed by invasive beetles. The FARC-EP (the Revolutionary Armed Forces of Colombia – People's Army) had retreated from the River a few years before, leaving some without the income they'd come to rely on, and others to face judgement from paramilitaries and the army for their interactions with these groups. Some were members of a small but vocal group in the River who called for lifting the local governing board's ban on growing coca – the plant used for cocaine. They would plant and sell it in a responsible way, they argued, and not allow the same social deterioration that had accompanied the boom of this crop elsewhere in the region. Julio's commitment to listening to their concerns and finding a path for putting food on their tables without compromising the well-being of the community made them keen to support him.

Perhaps no moment of the past had drawn a line so decisively between Julio and La Hormiga's previous leaders than where they had fallen at the decision point around a forest conservation project being considered by the community. While Julio had worked on the project team and had hoped that his community might participate in the project as a means of generating funds for community projects and enabling forest conservation simultaneously, the community's leaders at the time decided not to accept the project. It did not match their own ways of thinking about the conservation of their forest, these leaders told me. It was too unclear and too risky.

The project in question was known as "REDD+." To those in international climate change negotiations, this stood for Reducing Emissions from Deforestation and Degradation, "Plus" the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing [sic] countries. To the people of La Hormiga, it was a project that, confusingly, shared a name with their fishing net (*red*), yet they were told it had to do with forests. They knew it was something that their leaders had considered. They recognized that it seemed similar to "alternative development" projects of the past that had come through or been proposed in their community. To other leaders in the community who had participated closely in the evaluation of this project, however, its implications were potentially more dire, and they had decided to wait to see how it played out in other communities.

REDD+ had been proposed in La Hormiga by the United States' Agency for International Development (USAID). USAID had been investing in the Colombian Pacific region over a few project cycles before the director of its Environment Program decided in 2011 to develop a portfolio of REDD+ projects across the Colombian Pacific. His goal with this effort was to generate long-term funding for these communities through the sale of carbon credits, while promoting the conservation of the rainforests within which these communities lived. At the time, REDD+ was just starting to be considered as a project option in the development world. Few had actually created a REDD+ project, or fully understood what it would take to develop a "successful" one. At its core though, the idea of a REDD+ project was that companies or individuals would pay for the conservation of tropical forests in order to meet their own goals to reduce carbon emissions, by purchasing the carbon credits these conservation efforts would generate – "offsets" of their own emissions -- on what is known as a "voluntary carbon market."

These REDD+ projects, in Colombia and around the world, were pitched by proponents as triple wins – good for the rainforest and therefore biodiversity, good for the families living in and around these forests, and good for mitigating climate change by keeping carbon-sequestering

trees standing. At the local level, though, in La Hormiga as in other such deliberate forest communities around the world, there was a more nuanced, local debate about REDD+. Could REDD+ be used as a valuable source of funding to help them compete with pressures of natural resource extraction closing in on them? Could it help them provide an alternative income, for instance, to the community members who wanted to plant coca? Or did REDD+ in itself represent a new form of colonialism, threatening their autonomy and relationships with their territory by imposing ideas about conservation from the outside, and putting their forest use decisions in the hands of those on other continents? These were the questions that Julio had debated with other leaders at the time they were deciding about REDD+. Julio had taken a more hopeful view about the relative benefits REDD+ might offer over other development possibilities, while other leaders remained unpersuaded.

Julio's defeat in the REDD+ debate, however, did not carry over into the community-wide election of its leaders. His hopefulness and determination to spur economic opportunities in the River led La Hormiga to elect Julio late that evening to a four-year term as the community's Legal Representative.

2 An Agreement

On the morning of April 21st, 2018, a group of dignitaries from Colombia's capital high in the Andes, Bogotá, convened on a quick mission in the fierce sun of Chimichagua, Cesar, in the country's northeast. They were there, with their heavy security entourage, to sign the first commitment from a corporation to buy carbon credits produced by a Colombian forest conservation project, in response to the country's new carbon tax. After a few words and a round of signatures, the group planted a tree, a symbolic celebration of the "historic" moment (ATLinnovacion, 2018).

Participating in the ceremony were Colombia's President at the time, Juan Manuel Santos, his Minister of Environment, the Ambassador of the United States, the CEO of coal company PRODECO — with its massive mining operations 50 kilometers northeast of the signing spot —, and the director of an environmental non-profit that had been managing relations with the communities of the Colombian Pacific region participating in these forest conservation projects. By signing this contract, PRODECO became the first company to buy carbon credits under a new set of laws that Colombia had passed during the previous year.

One of these laws was a tax reform (Law 1819) that went into effect at the beginning of 2017 and included a tax on certain fossil fuels (Ley 1819 de 2016, 2016, pt. IX). The $5 per tonne of carbon dioxide equivalent (CO_2e) tax is levied on producers, users, and importers of liquid fossil fuels and industrial uses of natural gas at the time of sale or import. An interesting addendum to this part of the tax reform, however, was the passage of Decree 926 a few months later (Decreto 926 de 2017, 2017a). Decree 926 enabled companies subject to the carbon tax to avoid paying it by instead becoming "carbon neutral." Carbon neutrality, rather than requiring companies to actually reduce their carbon emissions, however, simply asked them to purchase "offsets" to account for their emissions. Under the Decree, these offsets had to come from carbon offset projects based in Colombia. Forest conservation projects turned out to produce the least expensive offsets available at a large scale.

PRODECO, which used large quantities of diesel in its coal mining and transportation operations, had decided to offset these diesel emissions rather than paying the more expensive tax. For every tonne of CO_2e they emitted through burning diesel while mining, processing, and transporting coal, they would save $2 by investing in offsets that would make them "carbon

neutral," rather than paying the tax to the government. According to a representative from PRODECO, the company was also granted a "bulk discount" for investing in all these offsets up front. This discount bumped up their savings by becoming "carbon neutral," rather than paying the tax, to closer to $3 per tonne of CO_2e released. They would pay $2 per tonne of CO_2e emitted to an intermediary managing forest carbon projects like those in the Pacific region of Colombia.

The forest projects that PRODECO was investing in with its signature were the same REDD+ projects that La Hormiga had been considering joining at one time. La Hormiga's neighbor, Los Cocos, had taken a different path, opting to participate in the REDD+ projects. With the signing of this contract, Los Cocos would be able to receive funding from PRODECO if it could show that it had reduced deforestation in its territory. PRODECO had been marketing itself in Colombia for some time as a socially and environmentally responsible business. The opportunity to contribute to "saving" the rainforest and the communities living there, as they suggested they were doing on this hot day, was just one more in the list of actions that could prove their commitment to the Colombian people and its ecosystems. It was also another chance to build distance between their own Corporate Social Responsibility (CSR) operations and those of their parent company, the Swiss mining giant Glencore — known for operating in risky political contexts, making legally suspect deals to do so, and raking in hefty profits in the process.

3 A Dissertation

It was not just this coal company's lobbying that led to this sweat-drenched moment of "success" for carbon markets and forest carbon offsets, though. Instead, the signing ceremony, as well as Julio's election, must be placed within four key larger contexts. First, one has to appreciate the current climate change crisis, and the way tropical forests fit into this crisis narrative as both cause and solution. Second, it is important to consider how REDD+, under the umbrella of other "neoliberal" Payment for Ecosystem Services programs, has emerged as a tool for sustainable development. Bundled with this is the context of Colombia's place on the world stage, which can help explain why it has embraced these tools. Third, it's critical to understand the history and present-day reality of the region in which these REDD+ projects occurred and the Afrodescendant communities that participated in them. This includes their relationship with the state and the state's sustainable development mission. It also includes their internal governance structures and institutions, and efforts of outsiders, including conservation interests, to shape these. Finally, inescapable realities of today that must also be included in this assessment are these communities' efforts to manage in the face not of just violence from the armed groups that have encroached on their territories, but in the face of globalization and climate change that is making their ways of life ever more challenging. Where are they resisting, what are they adopting or adapting to, and how are social movements and visions of autonomy shaping the paths that different Afrodescendant communities take? Where does REDD+ fit into these dynamics?

Understanding these contexts and their interactions is the work of this dissertation. The ceremony in Chimichagua, and the debates taking place in La Hormiga, are microcosms of these merging contexts. They are also, critically, examples held up to the rest of the world of how to save tropical forests — demonstrating how a carbon price can drive the protection of forests in a well-designed incentive system promoting carbon offsets, and how communities "in need" can benefit from this pricing. The sections of the introduction below begin to illuminate these threads

for later chapters to weave together. The end of the introduction lays out the chapters ahead and how each contributes to this story.

4 Dual Crises

Ecological grief presents a new challenge to psychotherapists around the world today (Cunsolo & Landman, 2017). The planet, it would seem, is in a moment of profound and rapid change globally, and we have never been better able to document or stay ever-attuned to these shifts [1]. Among the most well-covered socioecological threats to humanity and most of the lifeforms with whom we share the planet are climate change and tropical deforestation. The fact that scientists and a segment of society have recognized both as linked threats to human well-being across the planet for decades and have been unable or unwilling, particularly within the societies that are driving the problems, to address them, makes those who are concerned by these trends feel more powerless still.

It is easy to feel overwhelmed by climate change if one reads the news. Arctic sea ice is regularly setting new record lows (c.f. Kolbert, 2015a, 2015b), and we see images of majestic polar bears unable to cope (Leahy, 2018). Oppressive and deadly heat waves lasting for weeks (Mashal, 2019), and fast, powerful storms in places unprepared for them take deadly tolls (Leahy, 2019). All the predictions of what global warming would bring seem to be coming true. And while the pace of change is ever-more alarming, the leaders the world most needs to take a stand are ever-more denialist, doubling down on fossil fuels (Stone, 2019).

Tropical forest loss is in the mainstream news more than ever, too . Ben and Jerry were promoting their Rainforest Crunch ice cream over thirty years ago to save the Amazon from deforestation by supporting the market for Brazil nuts (Dove 1993). But these small-scale efforts from foreigners have done little to slow deforestation — in 2018 alone, 1.3 million hectares were deforested in Brazil. Across the tropics, that number jumps to 12 million, of which 3.6 million are considered “primary” forest — that is, areas that haven’t been cut within the last 30 years or more (Goldman and Weisse 2019; Weisse and Goldman 2019). [2]

This is bad news on many fronts. Climate change is likely to kill off a meaningful percentage of global species, while tropical rainforests in particular harbor massive biodiversity, making their loss feel even more tragic as their disappearance takes with them many of these species that may not even be catalogued by “science.” In 2019, the United Nations’ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, or IPBES, estimated that “around 1 million species already face extinction, many within decades, unless action is taken…” (Díaz et al. 2019). With the forests and all these species may also go the humans that live in them, and the diversity that they represent in ways of knowing and being on this planet. In other words, at a macro scale, climate change and tropical deforestation are rapidly bringing us all into a poorer, even more unjust, future.

The ways these two phenomena feed each other has been a source of concern among scientists for several decades — tropical deforestation accelerates climate change, while climate change accelerates deforestation (Bonan 2008). There is a theory gaining traction that the Amazon may reach a “tipping point” at which it shifts into savannah ecosystem that not only has less biodiversity, but that also captures much less carbon (Lovejoy and Nobre 2019; Nepstad et

[2] Importantly, there are also parts of the world where forests are returning (Hecht). Even within rainforests there are places where trees are regrowing. It is the overall trend in tropical rainforests to which this refers.

al. 2008). If this theory is correct, there is, some argue, no "planetary room" for tropical countries to go through the same "forest transition" that all developed countries have (Knight 2015).

Narratives of climate change and deforestation feeding each other have emerged in a different way, too. One can now commonly hear that climate change cannot "be solved" without reducing deforestation. Even Greta Thunberg and George Monbiot, both known for their more radical stances on the transformative changes necessary to avoid climate catastrophe, are promoting "protecting, restoring, and using" nature as a key part of "healing the climate" (Conservation International 2019). While forests have long been a part of climate change discussions, thanks to their carbon sequestering capacity via photosynthesis, they have never played quite as central a role in climate discourse than they have at the time of writing this.

Several factors help explain this shift. The first is that efforts to cut carbon dioxide emissions from fossil fuels are not happening nearly as fast as scientists suggest we would need to avoid 2 degrees warming. In 2018, for instance, some studies suggest carbon dioxide emissions were around 37.1 GT globally, which is 63% higher they were in 1990 (Global Carbon Project 2018). As a result, all other options, including "Land Use, Land Use Change, and Forestry" (LULUCF) have become more urgent as part of global climate change mitigation efforts. Despite increasing levels of deforestation in the tropics recently, the percentage of greenhouse gas emissions produced by deforestation relative to all other sources of emissions has been falling every year (Olivier and Peters 2020, 15). Meanwhile, the forest monitoring capacity created by new technologies, from new satellites and algorithms to drones, has made it easy for anyone with an internet connection and computer to witness deforestation from satellite data in near real time (World Resources Institute 2019). Widespread cellphone access has in turn allowed people to not only capture footage of deforestation but publish this to people across the world at any time, day or night. Advocates and academics have taken advantage of this access to get the message out that tropical rainforests are in danger from commodity crops — soy, oil palm, and cocoa/cacao in particular (Cazzolla Gatti and Velichevskaya 2020; Payne and Mann 2015).

Multiple proposals to "solve" the deforestation crisis have popped up from around the world. Companies and NGOs have developed "deforestation-free" certification programs and frameworks (Accountability Framework 2021; Donofrio, Leonard, and Rothrock 2017), while some countries and supermarkets have demanded supply chain transparency in exchange for shelf space. Others argue that the key is to secure the land rights of the people who live in and around forests and depend on this forest for their well-being, including through providing communal land titles to these lands. Indigenous people are mentioned most often in this solution, as these groups are owed these rights under international norms. Yet the concept has been expanded to include other communities, in the hope that, with security over their lands, people will be more likely to invest in their forests for the long run and appreciate the values that forests provide beyond commercial wood. Finally, there is the idea of paying people with forest to conserve that forest — be they individuals, communities, or national governments. This is the fundamental premise behind REDD+ — forests are presently worth more cut than standing on world markets, and REDD+ aims to change these economics by paying those who might benefit from cutting them to keep them standing instead. We are now a dozen years into the REDD+ effort to integrate standing forests into the United Nations Framework Convention on Climate Change (UNFCCC), and it is to this scheme's discursive foundation, simplicity in concept, and much more challenging execution to which I now turn.

5 Colombia's stage for REDD+

What, exactly, is REDD+? Part of the work of this dissertation is to answer this question, and Chapter 2 of this thesis digs into the many faces of REDD+. As a theoretical construct, REDD+ is a framework for mitigating climate change through reducing deforestation that took root within the United Nation's Framework Convention on Climate Change (UNFCCC) negotiations in the mid-2000s. It was championed by a combination of biodiversity conservation advocates and those who supported making emissions trading across countries a key part of meeting global greenhouse gas reduction goals. A selection of countries with tropical forests also hoped that this could bring them a financial windfall while helping meet future emissions reductions goals (Lovera-Bilderbeek 2019; Streck and Scholz 2006). The notion of paying people to conserve that REDD+ represents is an example of a larger trend in conservation toward "Payment for Ecosystem Services", where individuals, communities, and companies are paid via markets to enhance "Ecosystem Services," defined as the "benefits people obtain from ecosystems" (Millennium Ecosystem Assessment 2005).

The original concept for REDD+ emerging from the UNFCCC was that industrialized countries with great emissions debts and high costs for reducing their emissions, could meet a portion of their climate goals, or obligations, by funding reductions in deforestation in tropical forests. Visually compelling cost curves developed at this time to show the most "efficient" areas to invest in climate change reductions suggested that keeping tropical forests standing would be a relatively cheap means of cutting down on global emissions (Enkvist, Nauclér, and Rosander 2007; Stern 2006). After REDD+ was officially approved for integration into "The Bali Road Map" in the 2007 Conference of the Parties of the UNFCCC, a process began to prepare tropical forest countries to take advantage of REDD+. The United Nations-REDD program (UN-REDD), as well as the World Bank's Forest Carbon Partnership Facility (FCPF) were created to promote "REDD+ Readiness" so that these countries could develop forest baselines, forest monitoring systems, and plans and measures to reduce deforestation. Bilateral aid donors quickly became involved, too. Norway was particularly keen to contribute, hoping to be a global climate change leader even while continuing to sell millions of barrels of oil per day from its vast North Sea reserves.

Colombia, with its savvy technocrats, millions of hectares of relatively intact rainforests in both the Amazon and across the Pacific, and interest in showing the world that it intended to make good on its national commitments to mitigating climate change, soon signed up to receive funding through these "readiness" partnerships. At the same time these efforts were advancing at a national level, the country's rainforests also became home to a different scale of REDD+, known as "project REDD+."

Colombia had already been a leader in Latin America in implementing "Payment for Ecosystem Services" (PES) programs. The protection of Colombia's paramos — high-altitude ecosystems that are home to unique water-filtering plants — has become a textbook example of a PES success, as the cities that depend on these paramos to control water quantity and quality have developed a system of payments for their protection. Colombia passed national PES legislation in 2017, designed to support and coordinate the development of payment for ecosystem services programs around the country. In so doing, the law aimed to support individuals and companies to maintain their land in a way that would be beneficial for society. PES was also pitched as an important aspect of the implementation of the government's peace deal with the FARC-EP in 2016, with President Santos committing to prioritize PES investments

in regions that had been affected by conflict in order to offer locals alternatives to cutting the forest or planting coca. A habitat banking program was also unveiled in 2017 by the country's Minister of Environment, designed to encourage companies having damaging impacts in one part of the country to invest in conservation in other regions.

Why has Colombia been so eager to embrace the discourse and practice of payments for ecosystem services? I would argue that the use of this language across administrations is indicative of the desires of the leaders of the country over the last three decades to respond to competing international pressures. On the one hand, Colombia's governments have wanted to make Colombia a globally relevant economy, using the country's natural resource wealth — particularly in minerals and fossil fuels — to generate leverage and respect internationally. Colombia's leaders have not shied from courting international businesses and investment. Yet this extractive investment push is tempered by other international demands. The country's growing international fame as a "biodiversity powerhouse," and the increasing interest among international actors, including multilateral institutions like the World Bank, of "Sustainable Development" in the 1990s has led Colombia's leaders to navigate a fine line in its development practices. These leaders have been trying to show the world, and convince their divided people, that they can "have it all," and payments for ecosystem services, as one increasingly popular tool for promoting sustainable development through market mechanisms, seems to promise this. While these pressures are felt by many countries, Colombia has long been particularly eager to prove itself on this stage and so remake its global reputation for civil war and drug violence.

Payment for ecosystem services programs and offset markets have helped Colombian politicians realize these goals. The country can attract extractive companies with access to multiple markets through both Atlantic and Pacific coastal access. Participating in payment for ecosystem services allows these companies to continue their essentially destructive practices and yet show themselves to be good corporate citizens to Colombia's people, shareholders, and would-be boycotters. Carbon and biodiversity offsetting, for instance, allow these companies to suggest they are making up for their negative local impacts by paying for conservation elsewhere, thereby making their practices "sustainable" (Sarmiento 2013). This take on sustainable development has proven powerful for a "middle income" country like Colombia that seeks to attract foreign capital. Talking the talk of sustainable development has helped Colombia attract corporations beyond those with an appetite for high risk that might be more prone to invest in a politically risky area. In the process, the state might attract companies interested in not just extracting and leaving but investing in the country for a longer period and using and committing to the human capital of the country as well. It is for these reasons that the discourses and practices of neoliberal conservation and sustainable development are so common, and so politically and economically important in Colombia.

The practices necessary for Colombia to achieve "sustainable development" and to gain acceptance among global economic elites change over time, of course. The carbon tax that came into effect in 2017, for example, was implemented as part of the country's efforts to be accepted within the OECD (Monge 2018). In 2017, Colombia was one of only 21 countries, primarily European, to have any form of national carbon tax.[3] The opportunity to support forests through

3 The leniency of Colombia's tax in several regards, including coal's exclusion, is suggestive of the dependence of the country on fossil fuel revenues and the political power that fossil fuel companies maintain in Bogotá. This is not unusual among carbon taxes passed around the world to date, of course, almost all of which economists suggest are too low to change behavior sufficiently to alter the trajectory of rapid climate change already underway.

offsets, as enabled by Decree 926, was also a new means of generating funding for REDD+ projects, and Colombia's embrace of this new international form of PES is also part of this shifting global landscape — a landscape of international actors increasingly embracing neoliberal conservation practices — on which the country must prove its merits.

Colombia's new policies to encourage support for REDD+ were groundbreaking on a global scale, as was the linking of forest conservation to the peace process in the country. Yet there has been little examination of how the REDD+ efforts have gone to date there, in contrast to Peru, Brazil, Indonesia, and other leading REDD+ countries that have received much greater attention from academics. This made examining REDD+ in Colombia, including carrying out a close study of a REDD+ project on the ground in the country, all the more urgent.

6 BIOREDD+ and sustainable development subjects

A project like BIOREDD+ could not have happened just anywhere. It was, in some sense, built on the country's embrace of sustainable development, and in particular the political context that formulated sustainable development subjects in the country's Pacific. This allowed BIOREDD+, for instance, to make the Afrodescendant and Indigenous communities that participated in the program the legally-designated project proponents. This designation meant that carbon rights belonged to the communities, and that they, not the contractors developing the projects, would legally be in charge of deciding the destination of the funds generated by the sale of carbon credits. This was possible thanks to the unique status that these communities have in Colombia. Eighteen of the 19 communities that BIOREDD+ would work with were Afrodescendant communities in the Pacific, like La Hormiga, that had been granted collective land titles over the last twenty years. Afrodescendants received a suite of specific rights in Colombia's 1991 Constitution, including rights to the lands on which many of them resided in the Pacific, as descendants of the enslaved peoples brought to the region to mine for gold in the 17th and 18th centuries.

As Chapters 3 details, the recognition of the rights of Afrodescendant communities in Colombia was also influenced by a global shift in discourse and practice to more culturally-sensitive sustainable development (Brundtland 1987). Also influencing this discussion was the ascendancy of a body of literature from scholars conducting studies around the globe that suggested that communities like the subsistence-based Afrodescendants of the rural Pacific often maintained sustainable relationships with the land, and therefore should be trusted to steward it toward conservation ends (c.f. Acheson 1975; Berkes 1985; Ostrom 1990). These international discourses, combined with a surging Afrodescendant rights movement, placed these communities in a new light in Colombia. The recognition of their unique ethnicity and practices has been used to grant them territorial control and attracted development aid from organizations like USAID and SwissAid.

Thus, the value of USAID's BIOREDD+ program, and its ability to attract an investor like PRODECO to purchase its credits, became possible not just because of Colombia's interest in Payment for Ecosystem Services, or its ideal positioning to participate in REDD+ as part of improving their global image, but also as a result of the way BIOREDD+ could build on the creation of these sustainable development subjects to tell the story of community ownership and sustainable stewardship.

Like many REDD+ projects around the world, the BIOREDD+ portfolio that USAID developed was primarily conceived as a form of development aid, albeit with a hope of generating long-term funding from the private sector for forest communities. USAID had already

been working in the region with many of the communities that would become part of BIOREDD+ prior to BIOREDD+'s initial steps in 2011. After USAID's many frustrated attempts at "integrated conservation and development projects" (ICDPs), REDD+ seemed to offer a means of generating funding that might be able to last, and, by relying on carbon markets, could be less dependent on markets for material goods that had failed the communities on multiple occasions. Indeed, though these development projects are often packaged for the outside world as neat, definable units, it is important to understand the larger historical, much messier, context of "Development" in these spaces in order to understand both why projects are done as they are today, and why people in communities react as they do to the presence of these projects. In the case of the Colombian Pacific, the history of aid and other forms of development interventions, often taking conflicting forms, stretch back to the late 1950s. While Chapter 2 delves into this history in greater detail, here I introduce the competing discourses of development that have shaped the region and play an important role in this story.

Colombia's rainforested Pacific has long provided valuable goods for the country and for export, including hardwoods for the national railway system, rubber from wild rubber sources, and gold mined from the alluvial plains by enslaved peoples brought from Africa, and their descendants. It was not until the 1980s, though, under President Betencur, that the idea took hold that the Pacific could not only be a vast reserve of resource wealth for Colombia, but could serve a range of other development purposes, too. Betencur developed and promoted the first grand plan for an integrated development for the region, known as PLAIDECOP (Integrated Development Plan for the Pacific Coast). This plan as written considered not only the region as developable for the rest of the country, but the people of the region as development subjects, too. As the plan noted, "The Pacific littoral of Colombia is one of the regions most deprived and marginalized from the processes of economic and social development, and least physically integrated into the national territory. It's as if the county ends geographically in the eastern foothills of the Western Cordillera of Colombia" (DNP (Departamento Nacional de Planeación), CVC (Corporación Autónoma Regional Valle del Cauca), and UNICEF 1983).

It was also during the 1980s that another global trend reshaped the national imaginary of Colombia's Pacific Region — the emergence of the concept of biodiversity. The notion of "biodiversity," as a valuable, and measurable, conservation end in and of itself, was popularized in the late 1980s after the first ever National Forum on BioDiversity in 1988 and a book with chapters written by leading conservationists who had attended came out under the name Biodiversity. The volume was edited by renowned conservation biologist E.O. Wilson (Franco 2013). The Global Convention on Biodiversity took off shortly thereafter, with the first international unveiling of it at the 1992 Rio Earth Summit. Concurrent with this growing global interest in biodiversity, a number of prominent conservation biologists began publishing results from their studies in the Colombian Pacific and the larger "Chocó Biogeographic Region" in the 1980s and early 1990s, including botanist Alwyn Gentry (Gentry 1986; Leyva 1993). The region is estimated to be home to between 3500 and 10,000 plant species, with up to a quarter of them being endemic (Wilshusen 2003). The Colombian Pacific gained particular international prominence as a biodiversity hotspot when scientist Norman Myers named it as one of ten global biodiversity "hotspots" in his well-known 1988 paper, which subsequently was used to guide conservation investments among prominent NGOs (Myers 1988). It happened to be that these acknowledgements from prominent western scientists came at a moment of desperation among Colombia's ruling class in the late 1980s and early 1990s, as the country was teetering on the edge of becoming a failed state under the violence of narco-mafias. The interest of Northern

scientists in Colombia's natural richness, and the Pacific region in particular, was welcomed by Colombia's national politicians. In a few short years, discourses about the Pacific region therefore flipped among many in the halls of power in Bogotá: what was once Colombia's to develop, had become Colombia's to protect.

The possibility of doing both, however, was also emerging internationally at this time, via the concept of "sustainable development." As development practitioners and their academic critics looked back on a few decades of limited results (Escobar 2012; Quarles van Ufford and Giri 2003), and the negative ecological consequences and harm to local communities and cultural diversity of capital expansion around the world, sustainable development became a way for development agencies to shift their missions to attempt to account for these lessons learned. In this notion of development, it seemed, a country could have it all — diversity of people, diversity of flora and fauna, and economic diversity and growth.

From the 1990s through today, Colombia's Pacific Region has served as a testing ground for this new type of Development. The 1992 Río Earth Summit enshrined the concept of biodiversity and created an international funding institution — the Global Environmental Facility, or GEF — to finance sustainable development projects around the world. The Colombian Pacific was prioritized in the GEF, which gave 9 million USD in its first year to a project called "BioPacífico," to continue studying and protecting the biodiversity of the region and try to help the communities of the Pacific define paths to sustainable development for themselves (Asher 2009).

At the same time in the 1990s, another massive change was underway in the Pacific. The Afrodescendant populations of the region were granted in 1993 the opportunity to apply for collective land titles to their territories (Paschel 2018). Millions of hectares were eventually titled through this program, and the process attracted significant multilateral and bilateral aid to support these communities through the process. The law that enabled this titling also led to the creation of new local institutions — "Community Councils" — to manage these communities, and to promote their "development." Though the Black political leaders pushing for this law had wanted this development to be "autonomous" — meaning decided by the communities — this was a lot to ask of these nascent institutions that had no real funding source. Accepting funding and development aid from bilateral donors knocking at the door was a much easier way of meeting this criterion to promote development.

Yet even with this discursive commitment to ethnic plurality, community land titling, and biodiversity, a push from Bogotá to develop the Pacific for the country's "strategic economic interest" continued. The region has long been touted as Colombia's access to the world's "Pacific Basin." For decades, the Colombian government and a rotating cast of private companies have been trying to build an oil pipeline that would stretch from the Amazon to the Pacific in order to take advantage of Chinese demand (Ovalle 2016).

The country's largest port city, Buenaventura, is situated about halfway up the west coast, connected inland by one of only two roads that reach the ocean along Colombia's 1400 kilometers of Pacific coastline. Even while the city's population is among the poorest off in terms of security and having their basic needs met, the port continues to expand, with goods passing by en route to the Andes. New ports, and even an overland railroad "canal" to cross between the Atlantic and Pacific oceans are under consideration for the northern reaches of the region. Additional roads to reach the coast have been discussed for decades. Even communities with titles to their land have not been free from the threat of large-scale mining on their lands — the fact that they do not own rights to the soil below their lands has left open the possibility for

multinational mining companies to develop the concessions the state has sold them. Many communities have been unable to get the state to recognize their land rights despite the law, too, particularly where their land has other value to the state or state-connected corporations.

All forms of legal development plans from the outside brought into the Pacific — whether "sustainable," "participatory," "extractivist" or some combination of these — have been threatened by the general insecurity in the region over the last thirty years. Illicit "development" has certainly thrived, though, making cartel leaders and the owners of excavators for alluvial gold mining wealthy, and sprinkling new forms of income out among those farmers willing — or forced — to pick coca leaves or pan for gold in the pits dug out by the heavy equipment. These activities pose meaningful threats to the forests and biodiversity in the region, as do large-scale monocultures.

It is also in response to these challenges that REDD+ seemed to USAID to be a new development tool that could be left in the hands of those local people who expressed an interest in slowing the entry of these activities and protecting their forests. If companies were willing to pay these communities to keep illicit activities out of their territories and maintain their forests intact, it could benefit these communities on multiple levels, enabling them to generate long term funding, with little intervention from USAID needed in the future.

In the section that follows, I provide a brief summary of the contents in each chapter of the thesis.

7 Chapter Preview

As described above, Chapter 2 contextualizes the global forest conservation and climate change mitigation program known as REDD+. It lays out how REDD+ was conceived and developed at an international scale, explaining the arguments and people supporting and opposing its rise, and the discourses they drew on to make their claims. The chapter provides an overview of the range of critiques that have been leveled at REDD+, and the ways the program has or has not been able to integrate these critiques and change over time at different scales. It suggests that REDD+ in reality is not a single set of practices today, but that it has multiple, varied manifestations — as one form is criticized, the proponents of the overall notion of compensation for reducing deforestation attempt to transmogrify it into something new. Yet the "ghosts of REDD+ past" remain, making it hard to know which form is the "real" REDD+, or to analyze REDD+ as a cohesive set of practices. The chapter ends by considering the latest trends in REDD+ globally, speculating on where it may be headed and the role that understanding what has occurred in REDD+ projects such as the one studied here, might have for that future.

Chapter 3 sets the scene of the Colombian Pacific, where the REDD+ program being studied, BIOREDD+, landed in 2011. I provide a brief history of the Afrodescendant populations living in the region, their local livelihood practices, and the movement to develop a cohesive Black political identity among these people in order to receive rights to their lands, over which they had no legal claim until the 1990s. I show how the region is a stage on which competing discourses of Development and Conservation have played out over the last thirty years, and how the violence of civil war and narcotrafficking have strained local governance efforts and attempts to define autonomous development. The chapter ends by introducing the neighboring Rivers that served as case studies for this work — one, Los Cocos, which participated in BIOREDD+, and one, La Hormiga, which opted out. I explain why USAID sought to bring REDD+ to these two communities, why I chose to make them the foci of my study, and the benefits and limitations of using them as cases for the whole of the BIOREDD+ program.

Chapter 4 introduces the particular REDD+ project under study: BIOREDD+. It examines the aspirations of the USAID officers who developed the concept, the historical context and discourses on which it was built and lays out core pieces of the effort.

Chapter 5 examines livelihoods in La Hormiga and Los Cocos, looking particularly at the way BIOREDD+ has, or has not, changed these dynamics over the last decade. This chapter also begins to weave in the historical context of the intersection of sustainable development projects with long-standing livelihoods, and the way BIOREDD+ was sedimented atop this history.

Chapter 6 builds from this foundation to interrogate the ways that local governance has been shaped by the presence of BIOREDDD+ and the development efforts that preceded it. This is a particularly important area to explore because I hypothesize that the strength and legitimacy of the local government — beyond simply the legal titling of lands, increasingly proposed as a solution for reducing deforestation — will be an important factor in maintaining forest cover in the future in the communities of the Pacific, including in Los Cocos and La Hormiga. This chapter suggests that these cannot be considered in a vacuum, and so relies on the layered interactions between governance, development, and violence in these communities to understand in what ways BIOREDD+ built on these governance outcomes.

In Chapter 7, I reflect on the ecological implications of the BIOREDD+ projects as well. What impacts are these projects having on the forests and climate change now, and what impacts might they have in the future? Should we be concerned about a future in which we are fighting climate change through what I show to be largely performative mechanisms? Can these projects actually help address climate change through their production of carbon credits? I thereby consider the lessons that BIOREDD+ can provide to REDD+ in its latest, and possibly future, iterations. Are there issues that can be "fixed" moving forward — or is the notion of "fixing" in this context part of the REDD+'s most fundamental problems?

In Chapter 8, my conclusion, I tie together the lessons from BIOREDD+ and the stories of La Hormiga and Los Cocos, placing them in the larger global REDD+ and development and conservation contexts. The conclusions are particularly critical at a time of both increasing uncertainty about the future of REDD+ globally — including questions about what form it should take, and where the funding for it should come from — and an increasing desperation around tropical deforestation that has led many people to embrace REDD+ if only as the best possibility for securing the future of the forests. The Colombia model that is now financing the next lives of these BIOREDD+ projects, with its carbon tax and allowance for offsetting through REDD+ projects, has intrigued other countries and those with ambitions for the public sector to "leverage" private finance for REDD+. Whether this strategy that is so intriguing to the rest of the REDD+ world actually results in reductions in deforestation, however, and what unintended consequences it produces in the process, are the core questions around which this work revolves.

8 Los Cocos, La Hormiga, and the Politics of Resistance

In one sense, this dissertation is about how REDD+ projects come to be, how they are performed in rituals like the signing ceremony described at the start of this Introduction, and how they intersect with populations living in and around these forests. It is also the tale of one Afrodescendant community – Los Cocos – on Colombia's Pacific Coast that took the plunge to accept a REDD+ project supported by USAID, and another — La Hormiga — that opted out. It is a story about how those decisions were negotiated, what has come of them, and what might lie ahead. It looks particularly at how livelihoods and governance within these communities have changed from 2011, when the BIOREDD+ projects were first proposed, through today, and how

the broader context of Black social movements, international development and conservation, and the violence of the civil war and narco-economy that have reshaped the region over the last twenty years intersect with and help to explain these changes.

This work traces the discourses around REDD+, and the way these have been developed and conveyed through narratives, symbols, and performances within the different spaces where this project was made material. It shows how, even as USAID avoided working with Colombia's central government to develop its REDD+ projects, this government, through its co-creation of these Afrodescendant populations as sustainable development subjects -- culturally unique, predisposed to conservation, in need of development, and deserving of community title to their lands – was critical to the success of BIOREDD+'s narratives at an international level. Though USAID tried to generate carbon credits to sell independently through the voluntary carbon market, it was ultimately forced to depend on the Colombian government's passage of new laws to make the project profitable for the communities.

This thesis tells a story that, while ultimately casting doubt on the climate change claims of these REDD+ projects, leaves open the possibility of these projects providing a more freeing source of community funding to Los Cocos than any provided by the state, or by development projects of the past. There is a potential, however uncertain, for this funding to create new opportunities for the REDD+ participants in ongoing struggles in the region against coca cultivation and mechanized gold mining. This optimism is tempered by the effects that the projects have had on these communities along the way, layered as they are atop the "development" efforts, and their discourses and performances, that have been reshaping these communities in subtle ways for many decades. These are not the overt violence and displacement that some have feared would accompany REDD+, but rather the more subtle, slower reformation of community norms and relations that commonly accompany Development and Globalization as they seep into the furthest reaches of the planet.

This optimism must also be tempered by the violent turn that the region in which these communities are located has taken in the so-called era of "peace" in Colombia, which is more accurately called the "post-accord" era. The Revolutionary Armed Forces of Colombia-People's Army (FARC-EP, informally known as "the FARC") formally disbanded in 2017. Yet its cocaine production and smuggling operations, and its territorial control more generally, have been left up for grabs for the "dissident FARC," paramilitaries, cartels, and other guerilla armies that continue to operate in the region. Once again, La Hormiga and Los Cocos and many other communities across the region have been thrust against their wills into the middle of these conflicts. Leaders who take firm stances against the use of their territories to support these causes are eliminated or forced to leave their communities.

In the process of telling these stories I hope to show the subtle ways that neoliberal conservation efforts to address a "global crisis" through "market" mechanisms reshapes communities in different manners based on specific histories and individuals. These are themes that others including Tania Murray Li, James Ferguson, Arun Agrawal, Arturo Escobar, and Anna Tsing, have illuminated in their explorations of how international development and conservation take shape and defy or thwart planner expectations. REDD+ frames deforestation as a "global" threat that can be solved through shifting local economic rationalities with global funding. Yet while deforestation may have highly localized drivers and context, these are heavily influenced by global demands. REDD+, through its requirements to render peoples and territories technical (Li 2007), and to "make fungible" forests and gases (Lovell and Liverman 2010), brings its own unique requirements to these interactions.

In some respects, the story I weave is an ancient one that has been told, and that humans have lived, for thousands of years. Where people have developed ways of relating to each other and the land in their local environment, how do they manage with the imposition of new ways from the outside? What is adopted, what is resisted, and what is created as they adapt and go on — and perhaps are forced to bring their own ways elsewhere? The logic imposed from the outside is generally unsuited to maintain the set of relations between local people or between the people and their environment — practices that abruptly rupture this wherever they go and have only been able to work historically through such conquest and rupture. What about when these impositions come in not as violent conquerors, but through more subtle forms of what Foucault famously calls "the conduct of conduct?" Is there space for those encountering these stark neoliberal frames in this way to make them more compatible with, rather than destructive of, local relations? The next seven chapters aim to provide nuance to this story of the results of the arrival of "neoliberal conservation" and a realistic sense of the possibilities, and limits, of REDD+ in particular as it continues to hold a privileged place in climate talks and sustainable development circles.

9 Methods

The foundation of this research is the 10 months over two years – from 2015-2017 – that I spent, with a superb field assistant, Carlos, living along the rivers of La Hormiga and Los Cocos. In this period, we carried out interviews and household surveys, that were grounded in i) key themes of villagers' livelihoods and reliance on local natural resources, ii) their interactions with and opinions of governing institutions within the River, iii) their experiences with development and conservation projects brought in from outside – including BIOREDD+ -- and iv) their hopes for the future of their rivers and villages. During these months, we conducted 61 interviews with 56 different community members. We then transcribed and coded these interviews.

We trained enumerators from the communities over several days to carry out the household surveys. Across three villages in Los Cocos, these teams surveyed the heads of some 130 households, and did the same in three villages of La Hormiga, surveying the heads of 117 households.[4] About one third of heads of household survey respondents were women. I then analyzed these surveys in Excel to reveal trends and contrasts in a range of key questions.

Over our 10 months in the villages, we accompanied villagers in their work – including harvesting and processing sugar cane, planting taro, searching for key forest products, making bread, preparing meals and remedies, cutting trees, fishing, fixing nets, mining gold, carving canoes, and weaving reeds into hats and baskets – and in their worship and play. Through all of this, we learned about local livelihoods, about how lives in the River had changed through time – with technology, changing markets, war, land titling, new governance structures, new livelihoods, a changing state presence in the River, and migration, among other forces. We learned about peoples' dreams for the future of their families, villages, and Rivers. We attended many village- and River-wide meetings and ceremonies.

[4] There were 308 households total in the three villages we surveyed in Los Cocos, and 728 in the entire community across all the villages. We therefore surveyed 42.2% of the village population where we were working, and 17.9% of the total population. In La Hormiga, there were 279 households total in the villages we surveyed and 553 total across all the villages of the community. This meant we surveyed 41.9% of the households in the villages we worked in, and 21.2% of the total households across all villages in the community.

Outside of these communities, I conducted semi-structured interviews with fifteen non-community members who were involved with the BIOREDD+ projects under study. These interviews included those designing the project at USAID, its Principal Contractor, Chemonics, and subcontractors, including Fondo Acción. They also included technicians carrying out work on the ground and consultants based in California who were hired to manage the process to generate carbon credits from the projects. I also interviewed five individuals within President Santos' government in Colombia in 2017 who were involved in creating and promoting forest conservation efforts across the country, and seven individuals working at non-profits and other aid organizations in Bogotá who were involved in setting up REDD+ and other programs to reduce deforestation in Colombia.

Lastly, in addition to the aforementioned types of data collection, I reviewed hundreds of the documents created as part of the BIOREDD+ program – from meeting attendance sheets and budgets, through final reports – as well as other documents from past development and governance projects archived in the offices and libraries of La Hormiga and Los Cocos.

Chapter 2. Can Climate Change Investments Save the Rainforest? The Promises and Perils of REDD+

> The global climate changes due to even complete tropical deforestation are expected to be no larger than either natural climate fluctuations or the changes that will result from past combustion of fossil fuels. Hence, it is unlikely that this potential effect would deter tropical countries from exploiting their forest resources. However, if in the future the climate change due to fossil fuel burning were to stress the world economy, the additional contribution to atmospheric carbon dioxide by destruction of tropical forests would exacerbate the situation (Dickinson 1980).
>
> Protecting forests, including through forest carbon credits, is one of the most important solutions to climate change out there, and the planet can't afford to dismiss this opportunity to solve the climate crisis (Schwartzman and McCain 2019).
>
> The proposals of the neoliberal government have also talked about conservation, but the difference between the concept of conservation that they have and what we have are the questions "conserve for what and for whom?"…We have taken on the commitment to conserve these forests in order to guarantee that future generations are able to enjoy them, but the proposals that come from institutions under the framework of neoliberalism don't see it in this way. Their proposal is 'We will conserve this so that at the next opportunity we can exploit it. It will be more efficient and we'll get higher income out of it.' - Afrodescendant community leader, La Hormiga, Colombia, from interview with author, 2017.

1 Introduction

Over the last two decades, a heated debate has raged within the global environmental community over how to address the interlinked planetary phenomena of tropical deforestation and intensifying climate change. Few dispute that widespread tropical deforestation is exacerbating climate change. Yet the scale of this contribution, the fairness of centering this particular contributor in global climate change mitigation efforts, and the most effective – and just – methods for addressing such deforestation remain contested. Climate scientists, economists, foresters, biologists, anthropologists, geographers, indigenous peoples, and politicians, among others, have weighed in.

The recognition of the links between tropical forests and climate goes back many decades. Robert Dickinson's assertion made in 1980, above, that deforestation of these forests would only become meaningful as a climate vector if fossil fuels were already causing major strain on the climate was predictive of the present moment. Today, burning forests, as much as spewing tailpipes, are potent symbols of the cause of our climate crisis. Drier forests, including tropical rainforests, may be burning more as a result of climate change, but they are also contributing to the problem as the flames release carbon dioxide stored in tree limbs, trunks, and roots. The quote from Environmental Defense Fund (EDF) scientists Steve Schwartzman and Christina McCain reflects the assumptions about the relationships between forests and climate that anthropologist Schwartzman and several other conservation scientists have helped to naturalize in environmental discourse over the last twenty years. These include the assumptions that tropical deforestation is a "problem" for "the world" to solve, and that scientists have reached a common understanding of its impacts on global climate change. Notably absent in the EDF quote is the broader political and economic context for this tropical deforestation and climate change. Yet very much present are the assumptions that funding is key to saving forests, and that forest carbon credits, generated for sale on carbon markets around the globe, are required to generate this funding.

These assumptions underpin a global program to reduce the cutting of tropical forests, in which jurisdictions, companies, and individuals who seek to reduce greenhouse emissions — either voluntarily, or because of provincial, national, or international law — can pay countries or communities with tropical forests to maintain them. The program was first formalized with the United Nations Framework Convention on Climate Change and came to be known as "REDD+": Reducing Emissions from Deforestation and Degradation "Plus". But as naturalized as REDD+'s theory of change and the assumptions underpinning it might seem in some circles, critiques, fatal and friendly, have dogged the program from its earliest days.

This chapter explains why REDD+ is so polarizing, how it has proven adaptable, and why this adaptability, enabled by a combination of true believers in the core concept and those who might benefit from it, has made it enduring despite its contention. I show that this contention is grounded in debates over the assumptions contained in the statement above by Schwartzman and McCain, and in those that underpin the broader global development and neoliberal conservation discourses from which REDD+ emerged.

I begin by briefly tracing the creation of REDD+, showing how the historical context in which it emerged helped it to overcome previous reluctance on the part of many actors in both climate change and tropical forest conservation to become a centerpiece of the UN Framework Convention on Climate Change in 2007. I explain the basic forms that REDD+ takes today — national REDD, jurisdictional REDD+, and project REDD+. I discuss the primary critiques of REDD+ — some fatal, some friendly — and how these critiques and failures have been considered in the evolution of REDD+. I go on to show the origins of REDD+ in the joining of conservation and sustainable development, and how the growing role played by neoliberal theories of change and tools at this intersection paved the way for REDD+ and its grounding in markets and new technologies. Finally, I show how these origins lead to the critical questions about REDD+ that this dissertation seeks to answer, including whether it is fundamentally capable of changing the main drivers of deforestation, and whether its ever-increasing complexity will ultimately lead to its demise.

2 The Building of the Bandwagon

At the 10th conference of parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in 2007, a remarkable occurrence toward the end of the negotiations grabbed headlines around the world. A negotiator from Papua New Guinea, on the negotiating floor, called out the United States, then led by fossil-fuel friendly President George W. Bush, for holding back progress on the global effort to slow climate change. This young white man negotiating for the Oceanic nation told the US delegation, "If you are not going to lead, then get out of the way." The clip of the David vs. Goliath moment was played around the world.

This man had an agenda for the conference that this newfound fame would bolster. The man was Kevin Conrad, an American, Columbia University MBA student, recently designated as the Papua New Guinean climate negotiator. Conrad, who grew up in Papua New Guinea, had shared an illuminating conversation in the early 2000s with Papua New Guinea's Prime Minister and family friend, Michael Somare — both the country's first prime minister and holder of the country's highest elected position between 2002 and 2011. In their chat, Somare expressed frustration at being asked by the international community to cut back on the country's deforestation when the royalties from logging were a critical source of revenue for the country to "develop." Might they instead be compensated for keeping their forests standing? Conrad took the question to his environmental economics professor, Geoffrey Heal, at Columbia University, who was immediately intrigued by the possibility. The two penned an op-ed in the Financial Times promoting the idea (Heal and Conrad 2005), and worked to pull together a coalition of rainforest nations, led by Papua New Guinea, to call for compensation for protecting their forests within the UNFCCC in 2005. Conrad got Papua New Guinea's Ambassador to the United Nations to promote the idea in early 2005 at a UNFCCC Seminar of Governmental Experts in Bonn (Aisi 2005). The essential premise of the effort Conrad was leading, which came to be known as "RED" (Reducing Emissions from Deforestation), was that industrialized countries – what were known at the time in the parlance of the UNFCCC as Annex 1 countries – would pay tropical forest countries for keeping their forests intact.

Broadly, the theory of change behind RED was that tropical forests had a particularly important role to play in sequestering global carbon emissions and therefore in mitigating climate change, but that they were under various pressures because of the financial gains for their governments and broader economies of cutting the forest for timber and turning it to agricultural land. Unsurprisingly, Conrad wasn't the sole originator of the RED concept — the idea of "compensated reduction" had also been proposed by a group of conservation scientists in 2005 in both an article (Santilli et al. 2005) and book (Moutinho and Schwartzman 2005). RED was also sold as an efficient way for industrialized countries to simultaneously meet some portion of their own commitments under what might become a global cap on emissions – instead of cracking down entirely on their own industries and energy use, they could offset some portion of their commitments through investing in relatively cheaper reductions in tropical forest deforestation.

This plan to integrate forests into global climate negotiations was not without its detractors from the start. Indeed, standing tropical forests had quite intentionally been considered, but ultimately left out of the UNFCCC until this point, reflecting concerns that their inclusion would be too challenging to quantify accurately, and therefore might result in a corruption of the broader effort (German Advisory Council on Global Change 1998; Schlamadinger and Marland 2000). Others were concerned about the social context of RED. The program seemed likely, for instance, to re-centralize control over forests in the hands of central governments that for years

had undermined the rights of the communities living in and benefitting from these forests (Phelps, Webb, and Agrawal 2010). Some conservation biologists were much more hesitant to join the bandwagon than others, worried that the program would, like forest carbon offset projects of the past, lead to investments in tree plantations while leaving much more biodiverse "primary" forest unprotected (c.f. Emont 2019; Hughes 2019; Krauss, Yaffe-Bellany, and Simões 2019)(Pistorius et al. 2011; Potts, Kelley, and Doll 2013). More broadly, there was a cadre of people concerned that RED would serve as a means to cover up the fact that industrialized countries were not actually addressing the primary source of the climate change problem – the fossil fuel emissions on which their economies were so dependent (Streck and Scholz 2006; Greenpeace 2012; Hall 2014). In 1997, the United States had negotiated hard for the Clean Development Mechanism (CDM) to be included in the final Kyoto Protocol, which set up industrialized countries to buy offsets from various kinds of projects to reduce emissions in countries of the Global South. But European representatives that had reluctantly given in to the CDM in order to get the US on board in 1997 saw the inclusion of offsets from standing forests as a bridge too far in shifting the onus for emissions reductions to other countries (Repetto 2001; Werksman 1998).

The UNFCCC context had changed dramatically by ten years later in Bali, though. With the US no longer party to the Protocol, the UN climate negotiations had reached a particularly tense moment. RED was, for many, a bright light in an otherwise stalled effort – a program that promised to cross divisions between Annex 1 and Annex 2 countries, and bring benefits to both while supporting additional conservation, and even anti-poverty, bonuses. Skeptical conservation scientists and those concerned about the social impacts of REDD+ were brought along by commitments to safeguards for biodiversity and communities — finalized in the Cancún negotiations in 2010 (United Nations Framework Convention on Climate Change 2011). Technological changes had made assurances among REDD+ promotors that carbon would be accurately accounted for seem more plausible. As little else seemed to be working to slow the deforestation that was reshaping their field sites around the world, the risk of failure seemed worth the potential benefits to many conservation scientists. Despite its many critics, both inside and outside of the negotiations, then, RED proceeded on the backs of a few enthusiasts and many reluctant supporters. The UNFCCC integrated the program into the 2007 Bali Road Map that was to guide the future of the UN negotiations.

3 What is REDD+?

Since that fateful meeting in Bali, RED has evolved to take on some of the concerns initially expressed about its inclusion in the UNFCCC. Its acronym reflects this evolution. RED has become REDD+, which stands, in official UNFCCC language, for "Reducing Emissions from Deforestation and Degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks" (UNDP REDD+ 2017). For a period, the second "D" in REDD+ stood not for degradation, but for "in developing countries." Some have also thought of the + as reflective of the commitments for the program to not just support trees, but also to conserve biodiversity and support livelihoods in the process.

In some sense, the + symbolized the Rorschach test that the program represented, with people reading into it what they hoped to see. As such, describing REDD+ is more complex than one might think. Indeed, it is not just REDD+'s acronym that is both diverse and evolving; the program also takes multiple forms in practice, which are constantly evolving in response to criticisms and problems that have come of the other forms. REDD+ has had to adapt to the lack

of a global cap on emissions, and the market for tradable carbon credits that was supposed to come from that elusive goal. This cap had been anticipated to emerge from the UNFCCC negotiations, and remains a possibility. Even with REDD+'s chameleonized evolution, these various forms and interpretations have not won over all REDD+ critics, who see the basic premise as rotten or impossible.

Despite this confusing range of projections onto REDD+, it is helpful to think of three simultaneously occurring scales of REDD+ that have evolved out of the UNFCCC discussions: national, jurisdictional, and project REDD+. To get a sense of the range of forms REDD+ has offered to date, each of these will be described below.

9.1 National REDD+

National REDD+ was what was initially proposed under the UNFCCC in 2007 — a national-level compensation program that would allow industrialized countries to offset some portion of their emissions under a global emissions cap. Fourteen years later, that cap has yet to emerge. The original UNFCCC RED program now depends on investments from multilateral and bilateral donors to support three phases of REDD+: "readiness," "implementation," and "results-based finance." In practice, many tropical forest countries are still in a preparation phase or have skipped straight from preparation to receiving result- based payments – despite having changed little on the ground. Norway has carried the bulk of the funding in both bilateral and multilateral channels for REDD+ readiness and results based finance (Lujan and Silva-Chávez 2018). As a wealthy oil-producer, looking to reduce its carbon footprint without cutting back on its oil production and export, Norway has paid for the bulk of both the United Nations' UN-REDD program, as well as the World Bank's Forest Carbon Partnership Facility. Norway also created a partnership with Germany and the UK to spend $5 billion on further supporting forested counties to prepare for REDD+ and has put billions of dollars into its "International Climate and Forest Initiative," through which it supports both activities to reduce deforestation and promises payments to countries that succeed at doing so. The Scandinavian REDD+ patron in 2019 paid out the first money promised under a 1 billion agreement signed with Indonesia in 2010 to compensate the tropical country for reducing rapid deforestation driven primarily by oil palm expansion. Norway has also signed agreements with Guyana, Brazil, Peru, Colombia, Liberia, and Vietnam finance (Lujan and Silva-Chávez 2018).

The multilateral and bilateral funds directed toward "REDD+ readiness" have supported tropical forest countries to create national-level REDD+ plans, and to develop the technical systems and legal mechanisms required to receive funding under a future global REDD+ program. These investments include the development of forest carbon baselines and forest monitoring systems, as well as social safeguards to avoid social harms in the implementation of REDD+, and plans for benefit-sharing for any funding that comes in for REDD+. This funding was cumbersome to access, slow to be provided, and minimal – only a few million USD per participating country – and has now tapered off. A new multilateral funding source has been established to take over most REDD+ funding for implementation and results-based payments: the Green Climate Fund, or GCF. The GCF, created to manage the funding flows that the UNFCCC would require, has also gotten off to a somewhat slow and rocky start, but began awarding "Results-based payments," with its first $96.5 million going to Brazil in March of 2019.

9.2 Jurisdictional REDD+

Jurisdictional REDD+ is the relative newcomer to the triad of REDD+ scales, emerging as national REDD+ was caught up in the uncertainty of global negotiations. Jurisdictions, generally state or provincial level governments within industrialized countries slow to make global commitments, have decided to go ahead with their own climate ambitions, regardless of national-level support. California in the United States is perhaps the most prominent example of such a case, with its cap-and-trade program and ongoing hope of building links with tropical forest jurisdictions to create its own REDD+ offsets. Keen REDD+ funder countries, led by Germany, have also built relationships with tropical forest jurisdictions that are similarly ahead of their national governments in trying to address deforestation within their boundaries, creating pay-for-performance agreements with these jurisdictions. The example of jurisdictional REDD+ which has been carried the furthest is Germany's "REDD+ Early Movers" support of Acre, Brazil, since 2012 (KFW 2019).

With compliance carbon markets moving ahead in jurisdictions and a few nations around the world, there is a growing interest in the possibility of linking these tropical forest jurisdictions with these compliance markets. The Tropical Forest Standard, passed by the California Air Resources Board in 2019, offers a framework for such linkages to proceed in these markets around the world. Jurisdictional REDD+ has been the form that REDD+ enthusiasts have most recently pegged their hopes on, as actions at the national level now seem too slow and politically vexed, while actions at the project level (below) seem too costly and ill-equipped to deal with deforestation's principle drivers. Whether jurisdictional REDD+ can overcome the limitations seen in these other scales of REDD+, however, has yet to be proven.

9.3 Project REDD+

Project REDD+, though not officially part of any national climate commitments, is the scale of REDD+ where most on-ground efforts to change deforestation have occurred and is the form of REDD+ analyzed in this dissertation. REDD+ projects have primarily been developed to sell carbon credits on the global voluntary carbon market, the virtual marketplace for companies and individuals who have gone ahead with their own commitments to reducing emissions, even in the absence of a clear carbon price signal or regulation, to buy offsets. These companies have done so to save money on energy, to be "ahead of the pack" when such regulations do come, and as part of broader commitments to corporate sustainability that can add value to company stocks and increase sales. Where these companies are financially unable or unwilling to invest in meeting their ambitious climate goals entirely through internal efforts, they purchase greenhouse gas offsets — reductions in greenhouse gases from elsewhere in the world — to meet some portion of their commitments. REDD+ projects have joined other varieties of projects, like pig farms or landfills that invest in capturing methane emissions in the US, or the deployment of high-efficiency cookstoves in rural areas of India, to produce those offsets. In some cases, companies invest directly in the development of these projects, while in others, companies simply buy some of the credits from the projects after they have been verified, as one in a portfolio of offset purchases.

In tropical forest countries, REDD+ projects have taken a variety of forms. Some pull together a few forest-based communities with communal tenure, while others work across larger landscapes, asking individual farmers within that landscape to change their practices. Some are funded by non-profits, wealthy individuals, or bilateral aid, and emphasize development benefits.

Private companies foot the upfront costs for others, in order to receive a cut of the carbon credit sales in the future (Althelia 2019; South Pole Carbon 2019). As of early 2021, some 359 REDD+ projects in the world had been certified (280) or were in the process of certification (79) (Simonet et al. 2021), though it is a challenge to track them and all of them are somewhat distinct in their form because there is no single entity overseeing the creation of these projects.

REDD+ projects are generally not tackling the largest drivers of deforestation in these tropical forest countries (Pasgaard and Mertz 2016), though they may be conceived of to help forest communities "hold the frontier" against these bigger forces of timber concessions, mining, or agroindustry. The projects instead generally focus on communities where the threat of such large-scale deforesting activities is smaller (Murray et al. 2015), aiming to reduce smallholder impacts on forests, such as by reducing forest degradation from the harvest of local timber for commercial sale, or increasing tree cover on smallholder agricultural or pasturelands.[5] In practice, then, beyond the development of extensive project documentation, measurements, and calculations for the purposes of generating carbon credits, these projects often end up looking on the ground like the integrated conservation and development projects (ICDPs) that have been occurring in these regions over the past thirty years, supported by bilateral donors, conservation organizations like th Worldwide Fund for Nature (WWF), Conservation International (CI), or the Wildlife Conservation Society (WCS), or local conservation nonprofits. Many of these "REDD+ projects" are in practice attempts to supplement ongoing ICDP projects with the added incentive and funding that carbon payments might provide (Sunderlin et al. 2014).

4 What does REDD+ look like in a tropical forest country? REDD+ in Colombia

Colombia offers a useful example of how the different scales of REDD+ exist and interact — or do not — in a given country. At the national level, Colombia has received funding from UN-REDD, FCPF, and bilateral donors, including Germany, Norway, and the UK. Between 2009 and 2014, the country received some $64M USD for REDD+ investments on various fronts (Silva-Chávez, Schaap, and Breitfeller 2015). From 2012 to 2017, national and international NGOs supported Colombia's Ministry of Environment to develop the country's REDD+ strategy. International funding has also been devoted to developing a national safeguards system, required under the UNFCCC, and to strengthening the technical capacity and tools of the national meteorological institute, IDEAM, for developing a forest reference level to submit to the UNFCCC, and monitoring forest cover on an ongoing basis.

Colombia is also part of the "REDD+ Early Movers" program supported by Germany, Norway, and the UK. In 2015, the four countries reached an agreement that would allow Colombia to receive up to $100M USD if the country could they reduced deforestation from 2013 onward below a historical baseline (KFW and GIZ 2015). The only years for which Colombia has received compensation thus far are 2013-2015. In the wake of a national peace deal between the Colombian government and the FARC-EP guerrilla army, and the subsequent departure of the FARC-EP from the Amazon region, deforestation there accelerated beginning in 2016 (Prem, Saavedra, and Vargas 2018). These payments were largely given for results

[5] Developers of some REDD+ projects have also tried to push for land titling as a prerequisite for these projects in order to ensure that benefits from carbon credit sales go to the communities living on these lands. This titling can affect whether these forest areas will also become eaten up by these drivers of deforestation that often operate with the support of the national government.

achieved before the agreement was signed. As a result, it is difficult to argue that the activities for which the government received payments were "additional" — that is, that they would not have occurred without the promise of payments. The fact that this promise of funding was not remotely sufficient for stopping the expansion of deforestation in a region where the Colombian state had little presence in the years following the signing of the peace deal exemplifies challenges in these national REDD+ efforts: the limited control many central governments have over their forest regions, and the general lack of political will to crack down on those leading deforestation efforts, particularly where there are politically powerful forces behind them.

Colombia is now managing a combination of national, jurisdictional, and local REDD+ efforts. The central government has been able to do little to reduce deforestation, even with incentives — albeit limited — from the international community. Yet the country's passage of a carbon tax in 2016, and the 2017 "zero carbon" loophole that enables companies subject to the tax to invest in projects to reduce deforestation, rather than paying the tax (see Introduction), has led to the proliferation of REDD+ projects across the country since 2017. Could the national government receive "Results Based Payments" from the international community to compensate any reductions in deforestation that result from these projects? Would it receive credit internationally for the projects, like that which is the focus of this study, that have been either locally- or internationally-driven initiatives? Should the Colombian government get "credit" from donors or within the UNFCCC for those projects? It seems likely given the trajectory of UNFCCC negotiations that whatever reductions in deforestation occur as a result of these laws — hard to define in and of itself — could be credited to the country as part of their commitment under the UNFCCC to reduce emissions by 20% below their "Business as Usual" projection for emissions in 2030 (Colombian Government 2015). Meanwhile, jurisdictions in Colombia are taking their own steps to reduce deforestation and trying to link into possible future markets for this, such as California's (GCF 2019) and the international aviation offset market that will begin in 2020 (Climate Advisers 2017). How this "nesting" of REDD+ levels should work in carbon accounting and crediting terms is still under discussion, and indeed, is part of an ongoing dispute within the UNFCCC (Lee et al. 2018).

Colombia's effort to integrate REDD+ projects into national ambitions to reduce deforestation is a step that many REDD+ promoters would like to see other countries take. As such, assessing the impacts of these projects at the local level and on national ambitions to reduce carbon emissions, as explored in this dissertation, contributes to conversations about the future of the global REDD+ effort more broadly.

5 REDD+ Critiques

REDD+ at each of these scales has evolved in response to lessons learned along the way from critiques, practice, changing carbon markets, and the capacities and expectations of communities, governments, and NGOs around forest carbon management. Central to many of the critiques that REDD+ has sustained is a question about what REDD+'s priorities can and should be. Can it really be the cheap, forest-protecting, biodiversity-saving, carbon-sequestering, poverty-reducing, business success that some have pitched it to be? If not, then what REDD+ goals should be prioritized and how should those be achieved? Who gets to decide this?

Kevin Conrad, for example, the originator of REDD+ within the UNFCCC, has expressed exasperation with the insistence of some to force states to emphasize safeguards and benefit sharing, arguing that these have muddled the original goal of REDD+ (Knight 2015). Many critiques of REDD+ are also grounded in more fundamental concerns unlikely to be resolved

with additional requirements, such as for safeguards. These fundamental concerns fall into a few primary categories: problems with the environmental integrity of the offsets the projects generate, and the markets in which they are traded; social risks to communities participating in REDD+; and larger political economic and environmental justice arguments.

9.4 Environmental Integrity

Perhaps the greatest challenge to REDD+, particularly among those who support carbon offsetting in theory, has been around since the idea of using forests as offsets was being debated in the 1990s – namely, the basic way that these forests are translated into carbon credits and whether these credits can legitimately be traded for fossil fuel emissions. These critiques suggest that tropical forests are subject to unique conditions that make it very challenging to measure "reduced deforestation" and turn these reductions into a tradable commodity whose real-world value is guaranteed. Because the carbon credits generated through REDD+ are typically traded off for fossil fuel emissions elsewhere, the uncertainty about these projects actually reducing emissions are folded under the heading of "environmental integrity." The primary environmental integrity concerns fall into three main categories: additionally, permanence, and leakage.

9.4.1 Additionality

The additionality of carbon credits from avoided deforestation, i.e., the difference between the amount of carbon released to the atmosphere from an area engaged in a REDD+ project, and the amount released had that area not participated in REDD+, is inherently impossible to prove (see Chapter 7). How do companies or countries know that the offsets they are buying from REDD+ efforts do not simply represent the result of business as usual? Additionality is an important part of carbon markets because companies or states are claiming to offset, or "cancel out" their own emissions through investments in reducing emissions elsewhere. The value of the carbon credit therefore comes from the fact that it is representing emissions reductions that have been driven by these investments. REDD+ projects generally have suspect additionality because their additionality comes entirely from their comparison of reality with a counterfactual scenario. That is, REDD+ project baselines, or program "reference levels," are a modeled best guess about what will happen in the future, against which actual future changes in forest cover can be compared. Yet these baselines by necessity are best guesses about what the future might bring in these forest areas, and are open for manipulation from the project level through the national level. Indeed, reference levels and forest definitions have been central, and controversial, parts of negotiations between donors like Norway and tropical forest countries like Indonesia and Guyana.

In the case of REDD+ projects, credit buyers typically do not have the resources to assess from afar whether the project baseline is inflated to generate artificial, "hot air" credits – that it, credits that do not represent actual changes in deforestation. Instead, the credit buyer, like the project auditor, depends on the project's methodology and its underlying models and assumptions, as well as the project developer's application of that methodology, to accurately reflect whether these credits are indeed additional. Much of this process, though couched in black-and-white technical terms, is, as we shall see in the case of the REDD+ projects assessed in chapters six and seven, much more a politically-charged art, laden with subtle values and assumptions, than a formulaic science.

9.4.2 Permanence

The risk that the conservation of a targeted forest will not last after carbon credits have been generated is another major liability for carbon credits. Once fossil fuels are burned, their greenhouse gases are released into the atmosphere, and only the terrestrial capture of these emissions can slow the effect these emissions have on planetary warming. Trees capture some of that carbon, reducing emissions that reach the atmosphere for a time. When they fall in a storm, or burn, or are ravaged by disease, that carbon is released again – either immediately, as in a fire, or slowly, as they decompose. As those living with wildfires and mass tree die-offs from pests enabled by climate change can attest, it is difficult for humans to guarantee the permanence of captured emissions.

REDD+ projects and programs have modest insurance mechanisms built into them: risk assessments by consultants determine what percentage of carbon credits generated in each verification go into a buffer pool of credits that cannot be sold and can then be used as insurance to compensate buyers in case anything goes wrong in the project. Yet there is little clarity that this will be sufficient to mitigate uncertainties in carbon sequestration over the long term. Many observers have critiqued the fundamental premise of offsetting fossil fuel emissions that have real, immediate consequences with trees that may sequester carbon today, but release it tomorrow.

9.4.3 Leakage

REDD+ projects may reduce emissions in one area, but if the drivers of deforestation that would have felled trees in that place simply shift to another area as a result, this “leakage” should be subtracted from the benefits of that original reduction in generating offsets. There are also more subtle ways that leakage happens via the market — if restricting the supply of timber in one place due to a REDD+ project causes a rise in the price of timber, other actors may either initiate or expand timber harvesting in response to this price change, sometimes on the other side of the world. Leakage may be across national borders or driven by market mechanisms rather than remaining within a given company.

Measuring leakage that occurs at these larger geographic scales is particularly challenging. REDD+ projects do not generally attempt this, accounting instead only for a “leakage belt” or “leakage strips” around a project area and measuring this predicted leakage area’s deforestation rates as well. Such a geographic application makes many assumptions about who is doing the deforestation and what their alternatives would be for going elsewhere. Other leakage-measurement assumptions include a substitution of agricultural activities for timber harvesting, for instance, that could have their own deforesting effects. Best available evidence suggests that REDD+ projects should be assuming an 80% leakage rate of their deforestation reductions, though few projects or REDD+ programs integrate such expectations (Haya 2019). California’s domestic forest offset protocol, for instance, used under its cap-and-trade program, incorporates a leakage assumption of just 20% (Haya 2019).

9.4.4 Science for carbon accounting

While issues of additionality, permanence, and leakage present challenges to the environmental integrity of REDD+ projects, there is also little clarity about how carbon fluxes in project forests should impact aboveground biomass numbers and models used to prodcue these baselines and forest carbon measurements (Popkin 2019). Studies of the role of roots and soils in these processes, for instance, are still relatively nascent, though it is abundantly clear that both have

important, and complex, implications for the way carbon is cycled through these ecosystems (Batterman et al. 2013; Fleischer et al. 2019; Neurath 2011). Even such questions as whether young or older forests capture more carbon remain contested among scientists (Phillips, Brienen, and the RAINFOR collaboration 2017; Pugh et al. 2019; Woodall et al. 2015). The climate impacts of selective harvesting that degrades forests is also poorly understood (Curtis et al. 2018).

The greenhouse gas emissions reductions attributed to reduced deforestation are very much estimates, then. While we generally accept that cutting down tropical rainforests at scale has negative climate consequences, attaching CO_2e tonnes saved to the degradation of forests in a relatively small patch of land comes with high uncertainty. These limitations alone have made more ambitious climate change mitigation practitioners and activists uncomfortable with REDD+ since before it was proposed in the UNFCCC (German Advisory Council on Global Change 1998; Rotter and Danish 2000; Schlamadinger and Marland 2000). REDD+ supporters have responded to these critiques by seeking "good enough" solutions to these fundamental problems with the model, and emphasizing their "conservative" approach in the generation of carbon credits from forests (Streck and Scholz 2006).

9.5 Social risks

In addition to the ongoing critiques of the environmental integrity of these REDD+ projects, there remain serious concerns about the impacts that REDD+ might have on human communities living in or relying upon targeted forests.

Kevin Conrad and colleagues initially pitched national REDD+ within the UNFCCC as a means of compensating tropical countries for opting not to cut their forests, couched in terms of climate justice at an international level (Knight 2015). It was pleasing to industrialized countries thanks to the "cheapness" and scale of forest carbon offsets (Dyer and Counsell 2010; Eliasch 2008; Enkvist, Nauclér, and Rosander 2007; Stern 2006). Many NGOs and academics in tropical countries, however, raised red flags about this approach. The governments of many of these tropical forest countries, after all, were some of the biggest beneficiaries of deforestation, giving out mining, timber, and agrobusiness contracts that filled state coffers and personal bank accounts. Officials often systematically circumvented their own laws to enable these transactions. Indeed, Papua New Guinea, the country that inspired Kevin Conrad's push for REDD+, is notorious for extreme corruption in the logging sector (Butler 2006; Asia-Pacific Action Group 1990; Garrison 1991; Heal 2016). Would funding from REDD+ be likely to change that dynamic? REDD+ optimists hoped it might, but detractors were more skeptical (Karsenty and Ongolo 2012). Many worried that governments would turn to smallholders to generate these reductions in deforestation – smallholders whose livelihoods depended on using the forest – while leaving logging and agroindustrial companies untouched. Accompanying these concerns was a view that REDD+ could drive the recentralization of forest resources into the hands of central governments after decades of, admittedly rocky, efforts to decentralize them (Phelps, Webb, and Agrawal 2010; Ribot 2002; Ribot, Agrawal, and Larson 2006). These decentralization efforts had attempted to counter laws from colonial times that proclaimed, as some still do, that presidents own every tree and local citizens have to ask the president's permission before cutting one (c.f. Friends of the Earth-Ghana 2017). Such recentralization of resource control could lead not only to a loss of livelihood and connection to the land for many people, but also evictions for carbon forestry investments.

Concern over impacts of REDD+ on land and resources tenure is not an idle preoccupation, as most people in the tropics live on land that belongs to the state or is contested property, and this lack of clear tenure has enabled the eviction of people from their customary lands for conservation projects of the past – particularly protected areas (Rights and Resources Initiative (RRI) 2015). "Green grabs" resulted from carbon projects developed under the Clean Development Mechanism before the days of REDD+, and in early REDD+ readiness efforts in some countries (Cavanagh and Benjaminsen 2014; Lyons and Westoby 2014; Beymer-Farris and Bassett 2012). Shortly after the UNFCCC negotiations in Bali, "Carbon Cowboys" notoriously showed up in remote regions in South America and Southeast Asia to promise vast riches to communities for the carbon from their trees (Jacobs 2013). REDD+ projects like that led by the Jane Goodall Institute in Tanzania have also been criticized for violently forcing some communities off of project land (Lord 2018). Carbon forestry projects like that of The Nature Conservancy's Guaraquecaba Climate Action Project have been accused of preventing local people from practicing their traditional livelihoods so that General Motors, Chevron, and American Electric Power could buy carbon credits (Schapiro 2009).

These more extreme concerns of dispossession and violence appear to have been borne out in a relatively small number of REDD+ cases as of the writing of this dissertation. This seems to reflect the success of those who have put a spotlight on the potential for these problems, but also the small number of REDD+ projects that have been developed in general and the low returns on these projects. At this point, these projects are not attracting investors looking to make a profit at any human cost — again, partly as a result of successful international attention to processes like free, prior, informed consent — but rather aid donors (Atmadja et al. 2018). As noted above, many of these REDD+ projects were added to already-existing integrated conservation and development projects, so there was perhaps a more limited chance that there were going to be evictions associated with these projects (Sunderlin et al. 2014). Yet peoples' access to resources in the forest have changed in some of these projects (Bayrak and Marafa 2016; Hoang, Satyal, and Corbera 2018) and these changes have been seen to hit women, and often the poorest, particularly hard (Larson et al. 2018; Sarmiento Barletti and Larson 2017). In addition to threatening certain livelihoods and well-being, this limited forest access can also change local cultural dynamics and traditions. REDD+'s influence in this regard is typically not an isolated event, of course, remaking some ideal "traditional" society, but rather the next in a long series of forms of "environmental rule," posing new challenges and shifting relationships, power configurations, and local practices with it (McElwee 2016).

Other concerns about REDD+'s interaction with smallholders also persist. The complexity of REDD+, for instance, has made several researchers question the reliability of "informed consent" when most people in a community cannot say for sure just what REDD+ is or what the project in their community is supposed to do (Ece, Murombedzi, and Ribot 2017; Krause, Collen, and Nicholas 2013; Erin O. Sills et al. 2014). Challenges to local governance institutions also arise where local institutions are forced to be upwardly accountable, or are circumvented entirely (Ece, Murombedzi, and Ribot 2017).

Finally, there are more subtle, less detectable effects of assuming that conservation will only take place where there are economic incentives to do so. There are many reasons that forest communities might want to maintain intact forest cover, and many traditions and institutions for doing so. Where REDD+ comes in offering funding for reducing timber harvests, for instance, there is some evidence that this can "crowd out" these other motivations (Chervier, Le Velly, and Ezzine-de-Blas 2017; Cardenas, Stranlund, and Willis 2000b; Rode, Gómez-Baggethun, and

Krause 2015; Neuteleers and Engelen 2015). If the money ends after having displaced other conservation and resource governance practices, the effort based on payments may prove counterproductive over the medium and long term.

9.6 Political economic and environmental justice critiques

Broader concerns about the premise of REDD+ also continue to dog the program. Instead of seeing the promise of payments to forest communities as a form of justice, they perceive a fundamental injustice in a program dictating to smallholders who have burned few fossil fuels in their lives how they use the forest around them (Sikor 2013). Why should a smallholder whose net GHG emissions are zero through their rotational agriculture on secondary forest land, for instance, be asked to stop these agricultural practices in order to "conserve the forest," while the wealthiest in industrialized countries continue to emit fossil fuels at will? The long history of marginalization of peoples in rural regions now home to REDD+ has many concerned this is just the latest driver of dispossession.

Perverse consequences from these restrictions are also of concern to REDD+'s critics, as these have been seen in other conservation projects around the world. The people living in these forests have to eat, of course, and so will end up depending on other crops that may drive more intensive input use, for instance, or result in deforestation of primary rather than secondary forest. Disconnecting people from their territories and their means of subsistence may have perverse consequences for conservation, encouraging emigration from these spaces, breaking down local institutions, and leaving forests more susceptible to larger scale deforestation Robson 2009; Robson and Nayak 2010). Even where the state or private companies do not come in to a village to violently displace individuals for REDD+, they can indirectly force people from their land as they are, "privatizing, commodifying and financializing the world's forests" (Leach and Scoones 2015).

Some early critics have been satisfied with the efforts made by REDD+ proponents to address these critiques, such as through the integration of safeguard requirements, but others remain unpersuaded (Sikor 2013). To understand the basis of these ongoing critiques of REDD+, one needs to consider two of the principal ideas manifest in REDD+ in its various forms today — those of sustainable development and neoliberal conservation.

6 Discourses Underpinning REDD+

9.7 Sustainable Development

REDD+ follows the essential logic of "development" that Peet and Watts (Peet and Watts 1996; Escobar 2012; Scott 1999; Ferguson 1994; Li 2007), among many others, have dissected in their own work. It is a logic on which global conservation movements also rely today, one that brought together, in the post-WWII reconstruction era, the racist assumptions and legacies of colonialism with the liberal ideals of progress to suggest that the white nations could help "poor," "backward" countries to "take off," in the words of Rostow (Rostow 1990), toward a more prosperous future. This thinking in the West and the investments made in the realization of this visions were heavily shaped by the security concerns of the Cold War, and fears that countries "left behind" would turn to communism (Escobar 2012, 33–34). While a full reckoning with the history of the assumptions underpinning these notions of Development is well beyond the scope of this dissertation, most of this work was driven by a growing set of optimistic

practitioners with a genuine belief that investments from the “First World” to the “Third World” could raise “standards of living” in these “impoverished” nations to the level of industrialized countries.

This development discourse is founded on ideas about what served as progress and how it could be achieved, and turned anything that did not fit a certain way of living as “problems” to be solved with economics, engineering, and technology. With the success of the Keynesian experiment in applying economic theory to real world problems still fresh in mind, confident economists turned their attention to re-engineering the Third World with missionary zeal, creating a new field of “development economics” in the process. Laying bare the assumptions and consequences of development, Arturo Escobar, in Encountering Development, offers a telling example of this fervor through the words of an early World Bank economist and former official in the Roosevelt administration, Lauchlin Currie, looking back on his efforts to remake Colombia starting in 1949:

> I don't know where in my conservative Canadian background I acquired a reformer's zeal, but I must admit that I had it. I just happen to be one of those tiresome people who can't encounter a problem without wanting to do something about it. So you can imagine how Colombia affected me. Such a marvelous number of practically insoluble problems! Truly an economic missionary's paradise. I had no idea before I came what the problems were but that did not dull for a moment my enthusiasm nor shake my conviction that if only the Bank and the country would listen to me, I could come up with a solution of sorts to most. (Meier 1984, 130; as quoted in Escobar 2012).

Currie was just one small, if early, player in the vast global system devoted to his development mission that took off after World War II. The creation of the United Nations, World Bank (IRDB), and International Monetary Fund were central to this, as were the founding of bilateral aid agencies that followed. The academy soon began dedicating space to the work of “Third World” development, as did many of the major philanthropies – including the Rockefeller and Ford foundations -- and civil society organizations that began proliferating in this era.

Yet this fervor was tempered eventually as the undesirable ends that could result from infrastructure and input-heavy efforts like those promoted by Currie and other macroeconomists of the time became more visible and widespread in the late 1960s. These included environmental and social “externalities,” in economic terms, including concerns about the climate-altering effects that fossil fuel burning could have (Matthews, Kellogg, and Robinson 1971). These concerns were among the drivers of the UN Conference on the Human Environment in Stockholm in 1972 and the initial conceptualization of “sustainable development.” This concept, now so widely accepted as to seem insipid, was more controversial at its conception. Fears among some “developing” countries that industrialized countries intended to use the environment as a means of holding back their own development ambitions led them to threaten to boycott the 1972 conference (Black 2012). This same skepticism among tropical countries about “sustainable development” dictating the terms of their own investments can still be heard in anti-neocolonialist and nationalist discourses today on both the left and right — from former Venezuelan President Hugo Chavez to current Brazilian President Jair Bolsonaro.

Yet many leaders have come around to a willingness to accommodate and support these conservation efforts, if only to improve their reputations among the clubs of countries who increasingly make “sustainability” a criterion for their aid and loans. If these countries are provided funding and “technical capacity,” they may be all the more likely to accommodate

these conservation demands. A broader acceptance of "sustainable development" within both the development community and "developing" countries emerged in the 1980s, exemplified by the 1987 Brundtland Commission Report, "Our Common Future" which was followed shortly after by the Rio Earth Summit in 1992.

The rise of international civil society organizations, including conservation organizations, contributed to this shift. As the development community then began to integrate principles of conservation into its own projects, it found a willing partner in this growing international conservation community. After years of prioritizing protected areas whose ecological values were diminished by ignoring the people living in and around these areas, this community was increasingly recognizing that it also needed the development community to advance its own goals. The global missions of sustainable development and conservation became further enmeshed as bilateral aid was increasingly invested in conservation-forward projects that promised development co-benefits. Multilateral funding began to integrate development and conservation concerns, with new branches dedicated to environmental issues and funding provided for issues like climate change.[6] REDD+ fit neatly into this growing overlap between these conservation and sustainable development worlds — particularly given that part of this shared space was increasingly devoted to the creation of new markets to address their common challenges.

9.8 Neoliberal conservation

Just as the international conservation community was joining forces with development agencies in the 1980s, another global force was reshaping both: neoliberalism. Much as it was becoming more apparent in the 1970s that development efforts were overspending ecological budgets worldwide, so, too, did the effects of overspending of state budgets and centralization of industries begin to show signs of strain. The economists who had the ear of Ronald Reagan and Margaret Thatcher and were in power within the IMF perceived Western spending on "developing" countries to be supporting industries that were inefficient, weighed down by state bureaucracies. They saw loans going unpaid and argued, in their fervor for "freeing" markets — in part to create new markets for their own countries' economic interests — that the subsidies and price supports provided to farmers in these countries were distorting markets to the detriment of the people. Others had become disillusioned with aid for other reasons, seeing it as a means of creating dependency instead of growth, with massive loans going unpaid. Responding to these concerns, bilateral and multilateral donors — most notoriously the IMF — increasingly attached strict conditions to their funding, including privatization of industries and removal of price supports and trade barriers in line with their own free-market ideologies. Countries were required to implement these austerity measures, prioritizing repayment to the IMF over the continuation of state-led social programs.

The retreat of the state and the privileging of the market that characterized reforms beginning in the 1980s is core to how neoliberal practice is generally understood in the structural political economic analyses promoted most prominently by David Harvey (Harvey 2007). In this view, the state has an important role to play in setting up and defining the bounds of these markets, but it does not get involved with details such as setting prices or providing subsidies to lower income

[6] For much of the last thirty years, of course, these development banks have continued to fund seemingly contradictory "traditional" development projects like roads through rainforests, coal plants, hydroelectric dams, cattle ranching, and pulp and paper mills.

earners. Harvey emphasizes the inequitable outcomes that result from such a system, where the rich tend to get richer, while the poor tend to continuously lose out. In contrast, economists in the neoclassical tradition have promoted neoliberalism by emphasizing the efficiency of privileging markets, wherein, theoretically, each individual is given an opportunity to decide how much a given asset is worth to him or her as an individual, and trade toward potentially better outcomes based on this assessment. A core tenet of neoliberalism is the idea that, with the right incentive structure in place, people will act in a "rational" manner that benefits their own interest, and in so doing, will benefit the interest of society at large. There can be a key role for the state under neoliberalism in establishing the rules of the game — rules that must be updated as realities change.

As Milton Friedman and his colleagues from the Chicago School of Economics gained power in decision-making circles in the 1980s, the ambition and opportunities for the government to establish markets in more domains of life grew to include addressing environmental ills. In the United States, the first of these markets created at scale was that for reducing acid-rain through the trading of emissions permits for sulfur dioxide from coal plants, signed by President George H.W. Bush in 1991. Between 1990 and 2010, pollutant trading markets and "offsetting" of environmental ills in one place through investments elsewhere became central tools in the environmental toolbox in the US and around the world — despite some prominent environmental economists pointing to the limitations of these markets for achieving their goals in as cost-effective a manner as their proponents claimed Carbon Conflicts and Forest Landscapes in Africa (Repetto 2001). Thousands of consultancies have popped up around the world to advise governments on how to create these markets — for clean water, biodiversity, and carbon, among others — and then to advise polluters on how to operate in these markets. Included in this trend are the expansion of the concept of "natural capital" and the creation of "payment for ecosystem services" programs.

The US began exporting the idea of using market mechanisms for conservation during the development of the Kyoto Protocol in the mid-1990s. Despite concerns from other countries about integrating cross-border emissions trading into the agreement for both environmental integrity and political reasons, such trading turned out to be key to getting an agreement that the US would support – though the US would never ratify the agreement, and shortly thereafter announced it was reneging on its commitments under Kyoto (Repetto 2001; Shapiro 2010; Werksman 1998). The most important trading mechanism agreed was the project-based Clean Development Mechanism (CDM), which allowed industrialized countries ("Annex I "countries) to purchase offsets from "non-Annex I" nations. The US pushed for these foreign credits in order to meet its obligations under Kyoto at between a half and a quarter of the price, though the equity pitch for the CDM was that it would provide a form of reparations from industrialized countries to non-industrialized countries in order to make the process to "leapfrog" over a period in which they became dependent on fossil fuels and then had to wean themselves off of them less painful and more lucrative (Repetto 2001). Robert Repetto was among the prominent environmental economists who urged caution in celebrating the inclusion of the CDM in Kyoto, suggesting there would be strong incentives for all parties to create "hot air" credits, and for leakage across borders (Repetto 2001).

Repetto was particularly cautious about incorporating forests into the CDM, pointing to the additional governance, measuring and monitoring challenges their inclusion created (Repetto 2001). As a result of such concerns and political realities at the time, the inclusion of avoided deforestation was not seriously considered at the start (Deutschland / Wissenschaftlicher Beirat

Globale Umweltveränderungen 1998; Fearnside 1999; 2001; Rotter and Danish 2000). Yet many held on to the hope of integrating tropical forests into Kyoto (Fearnside 2001; Rotter and Danish 2000). By the early 2000s, these individuals were selling the precursor to RED as providing biodiversity benefits — key to gaining support from conservationists even when climate activists were uncomfortable with the diversion forest offsets created from a fossil fuel focus. By the time people like Kevin Conrad began advocating for an avoided deforestation compensation scheme for tropical countries within the UNFCCC in 2005, more conservationists and climate change practitioners had become accustomed to "putting a price on nature" and trading their way to carbon emissions reductions.[7] The technological improvements that were advancing rapidly at this time to remotely sense what was happening in tropical forests also increased the confidence of skeptics that these offsets could be monitored and measured accurately enough to make the program work (Santilli et al. 2005).

7 REDD+ as Neoliberal Conservation and Development

REDD+'s uptake in the mid-2000s therefore exemplifies not only the merging of conservation and development, but the normalization of neoliberal concepts in these fields over the last thirty years. The core assumptions underpinning this shift are:

1) governments cannot manage conservation alone and command and control regulation is too expensive;
2) putting conservation in the hands of private entities, such as NGOs or conservation finance companies, can yield better results, and;
3) conservation will only work if the people who would otherwise participate in environmentally destructive activities have a financial incentive not to do so.

All of these rely on a further set of assumptions about human behavior and what motivates us, privileging the idea that we are all largely economically rational actors, and that money can stand in for other motivating values that could be considered in our routine cost-benefit analyses. Part of the motivation for the neoliberalization of conservation has been similar to liberalization of other sectors, as certain actors who stand to benefit from promoting this shift — such as the Wall St. traders who profit from emissions derivatives, and the "expert" consultants who make the rules of these new markets.

Growing investments in neoliberal tools to promote conservation have also been reinforced by those who have internalized neoliberal discourses.[8] To these individuals, "putting a price on nature" may seem like the only way to make conservation work. If one assumes the rest of the world has also internalized this premise, this theory of change seems a plausible conclusion. Not all in the field of conservation have been so complacent or compliant with this shift. One PhD student studying within the Natural Capital genesis team at Stanford University (Kareiva et al. 2011) penned a compelling rejection of "nature for money's sake" as conservation's primary tool in a Nature commentary: "Market-based mechanisms for conservation are not a panacea for our current conservation ills. If we mean to make significant and long-lasting gains in conservation,

[7] This increasing ease was forming despite early warning signs from the Clean Development Mechanism about the challenges of using these markets to create real emissions reductions.
[8] This internalization might be thought of as the "manufactured consent" to rational actor theory that life in a capitalist society breeds (Gramsci 1971).

we must strongly assert the primacy of ethics and aesthetics in conservation" (McCauley 2006, 27).

Despite similar concerns from other conservation biologists, environmental philosophers, and ecological economists, conservation's shifting emphasis toward environmental economics and "green" finance does not seem to be slowing. What are some of the practices in conservation that demonstrate this "neoliberal turn" then? Holmes and Cavanagh, in their 2016 review of the social impacts of neoliberal conservation, succinctly summarize the changes in conservation indicative of this shift, with specific examples, including marketization, commodification, privatization, financialization, and decentralization (Holmes and Cavanagh 2016) (see Table 2.1).

Table 2.1 Characteristics of Neoliberalization and Examples of their Use in Conservation

Marketization: The regulation of exchange in goods or services via markets rather than an alternative mode of distribution. Often entails commodification and/or privatization as a necessary precondition.
Example: Payments for ecosystem services on privately-owned lands in the Amazon (Pokorny et al., 2012)

Commodification: The legal or institutional re-inscription of 'things', interactions, processes or services as commodities rather than gifts, entitlements, or rights. Commodities are generally obtained by monetary payment, but not always via markets and are not always privately owned.
Example: Commodification of carbon sequestration or other ecosystem services originating within state-owned protected areas with public trust funds (Nel and Hill, 2013; Cavanagh et al., 2015)

Privatization: The conversion of property rights to land, resources, services, or commodities from communal, state, or open access non-property to private ownership. Sometimes entails commodification as a necessary precondition.
Example: Privatization of wildlife on private game reserves in South Africa (e.g. Snijders, 2012)

Financialization: The creation and valuation of 'derivative' commodities without necessarily commodifying or privatizing an underlying asset or resource. Derivative commodities are not always traded via markets or privately owned.
Example: Carbon or biodiversity offsets derived from state managed protected areas and circulated on voluntary ecosystem service markets (e.g. Cavanagh and Benjaminsen, 2014)

Decentralization: The delegation, outsourcing, or extension of administrative functions without necessarily altering underlying property rights, typically via the involvement of 'flanking organisations' such as NGOs, community organizations, or private firms. May also be combined with 'new public management' strategies and the budgetary surplus-driven management of state agencies.
Example: Extension or delegation of protected area management via private and civil society organisations (e.g. Adams et al., 2014)

Table source: (Holmes and Cavanagh 2016, 201)

As Table 2.1 illustrates, neoliberalization in the world of conservation includes not only activities like the creation of pollution allowances to be traded on markets custom-built for that end, such as carbon markets, or "payment for ecosystem services" programs, but also the passing off of management responsibilities of national parks to non-governmental organizations (NGOs). In Colombia, shifts toward neoliberal conservation are evident in the country's keenness to implement payment for ecosystem services projects, and embrace the concept of creating markets for offsets — in biodiversity, habitats, and carbon. The geographers and political ecologists cited in Table 2.1 — are part of a growing movement to document at a case level the specifics of such neoliberal conservation interventions (c.f. Asiyanbi, Ogar, and Akintoye 2019; B. E. Büscher 2008; Corson 2011; Lohmann 2012; McAfee and Shapiro 2010; Nel 2015). Most of these works are quite critical of neoliberal conservation practices, often observing their unequal, perverting, and occasionally disastrous effects (Fletcher 2010, 172).

In taking the measure of the social outcomes of neoliberal conservation seen in this research, however, Holmes and Cavanagh are cautious, pointing to the "chameleon" nature of neoliberal conservation. They call on researchers to be specific about what is meant by neoliberalism in the particular context in which it plays out (see also (Heynen and Robbins 2005). I seek to respond to this call and to use this label of neoliberalism with care and specificity. Many conservation programs that have neoliberal elements may also rely on non-market mechanisms, such as shooting poachers or fining those who cut trees or attempting to reshape norms and values or particular groups of people to encourage them to conserve.

In addition to trying to be specific about how these neoliberal discourses and techniques intersect with other forms of governance, I aim to respond to a second call that Holmes and Cavanagh make at the end of their review for future research to "consider, whilst taking into account the particularities of place and the variegations between specific formations of neoliberal conservation, why different processes involved in the neoliberalisation of conservation do or do not elicit various forms of resistance…(and) review and explain the varieties of specifically environmental or ecological – rather than merely social – impacts of neoliberal conservation" (Holmes and Cavanagh 2016, 207). I address these three recommendations in this work, by showing in what ways REDD+ can and cannot be thought of as "neoliberal conservation," being specific about the particular context in which it lands and the varying ways it elicits, or does not, resistance, and pointing to the ecological impacts that result. To set the foundation for this exploration, then, in what ways to can the design of REDD+ projects in particular be thought of as "neoliberal?"

First, these projects aim to motivate those with some control over tropical forests to protect them in order to receive payments. The notion that payments, or profits, are a leading motivator of all humans underpinning this policy is an argument of the American strain of neoliberalism (anarco-liberalism or anarco-capitalism of the Chicago School of Economics) cited by Foucault (Foucault et al. 1991). This general argument faces complications, as we shall see, when those receiving the funding, and in theory motivated by it, are large groups or even countries.

Second, REDD+ is part of a larger global effort to internalize the global externality of fossil fuel burning — climate change — by putting a price on carbon. Though environmental economists have been calling for carbon pricing for several decades now, it has advanced in a fairly limited set of jurisdictions around the world.

Third, REDD+ is also part of an effort to make these restrictions on fossil fuel emissions as "efficient" as possible by allowing sale of carbon credits on a carbon market. It is through this

mechanism of the "carbon market" that a company like PRODECO can end up buying carbon credits from communities in the Pacific in order to "offset" its greenhouse gas emissions from burning diesel to power its coal mining operations.

Fourth, in order to create these carbon credits, greenhouse gas emissions from around the world, from a wide variety of sources, must be made fungible in order to be traded. That is, they must be commoditized. A tonne of "carbon dioxide equivalent" (CO_2e) in the form of methane from a factory farming operation must, through this elaborate accounting process, be made equal to a tonne of carbon dioxide captured by standing forest.

Fifth and finally, REDD+ projects have a particularly neoliberal foundation in the sense that they assume that the externalities created by fossil fuel burning can be addressed through a profit motive. The "voluntary carbon market" is proposed to be a "private sector solution" to climate change, with for-profit carbon credit traders, and REDD+ project financiers who invest in getting communities to conserve their forests in order to take a cut of carbon credit sale value.

The core of what REDD+ takes from its sustainable development and neoliberal conservation progenitors, then, are assumptions about which tools of change will be effective: technological fixes and market fixes. This combination fits into what McAfee calls "Green Developmentalism": a "bias toward technological solutions and away from social-structural changes" (McAfee 1999).

The scale of the technological and economic fixes proposed under REDD+ distinguish REDD+ from earlier global campaigns to conserve forests. These fixes include, first, the massive funding flows that, in theory, would come with new limits on and trading of greenhouse gas emissions (Eliasch 2008), and second, the ever-improving ability to "see" and therefore understand activities in remote forest through rapidly improving satellite and LIDAR technologies. These technologies' omniscient view aims to make legible the illegible, which can help control subjects (Foucault and Rabinow 1984; Scott 1999). This tool has allowed anyone with a computer and internet connection to see and measure forest carbon globally and detect deforestation in remote regions in near real-time (Finer et al. 2018; World Resources Institute 2019). These technologies have, REDD+ designers argue, changed our ability to know what is going on in forests, and therefore address "environmental integrity" critiques. The economic fix of creating global markets for trading greenhouse gas emissions, meanwhile, was the centerpiece that designers hoped would make REDD+ work where past sustainable development and forest conservation efforts had failed.

The centrality of financial incentives for keeping forests intact has been the defining element of REDD+'s "neoliberality." In practice, however, it does not take long to see how these financial incentives cannot succeed without strong state involvement in setting the rules - particularly through carbon pricing - and enforcing them. This suggests that REDD+ can neither be categorized as "neoliberal conservation" given the multiple forms it takes and its dependence on the state, nor as something new under the sun, distinct from forest conservation efforts of the past. Instead, REDD+ and other conservation efforts in practice depend entirely on the same rootstock.

A key question that this dissertation seeks to answer about REDD+, then, is one that divides the program's critics and proponents: do REDD+'s efforts to create a market mechanism for conserving forests through carbon credits strengthen that conservation governance, or in fact serve to weaken it, and therefore fail to achieve the common ambitions of these programs? This is a question that is implied, for instance, in the debate about REDD+'s effects on land and carbon tenure. Will having REDD+, an international program that predicates funding to states on

the state providing clear tenure rights in forest areas, lead to more displacements of those with customary tenure, or will it encourage governments to finally provide titles to those with customary tenure? (Chhatre et al. 2012; Larson 2011)?[9] Another question that arises is whether the creation of a market to trade tropical forest carbon credits serves to clarify, or obscure whether the governance is becoming stronger or weaker. In other words, does REDD+ represent new growth on the "reducing tropical forest destruction" tree that will create further photosynthesis and strengthen the tree against harsh winds? Or does it instead represent a showy but parasitic mistletoe, attracting attention away from its weakening of the tree, which may ultimately lead to the death of both parasite and host?

8 REDD+: Dead or Alive

A casual observer of REDD+ would be forgiven for being confused about where the program stands today, given frequent declarations that it is, or ought to be, dead, and the ever-evolving forms it takes. Every time a critique surfaces of the way REDD+ has been carried out to date, those who hope not to "throw the baby out with the bathwater" find a way to renovate the concept as something slightly different. On some occasions, these rebirths are given new names, while in other moments the REDD+ name is kept to suggest that there is something strong in the original idea of compensating reductions in deforestation toward climate mitigation that must be maintained.

Just one example might serve to show how confusing these reincarnations can get. In January 2017 Peter Holmgren, then-director of the Center for International Forestry (CIFOR), the leading global research institution on forests based in Indonesia, proclaimed "REDD+ has disappeared." Holmgren went on to say during this same keynote speech at the annual conference of the Yale's International Society of Tropical Foresters that silver bullet solutions to climate change and deforestation should be considered suspiciously (Holmgren 2017). His comments came just one month after Frances Seymour, Holmgren's predecessor as CIFOR Director General, published Why Forests? Why Now? The Science, Economics, and Politics of Tropical Forests and Climate Change, asserting that the world must double down on REDD+ finance, that the program was weak only because industrialized countries had not invested enough in it, and that it could thrive if these countries put their money where their mouths were (Seymour and Busch 2016). This same debate continues, though the work emerging from CIFOR suggests that the institution on the whole has fallen to Frances' side, implying in their work that if REDD+ continues to take on board the advice they have provided through their studies of the program, the main limitation on REDD+'s success will be funding. The fact that their latest book laying out this direction is called "Transforming REDD+" is indicative of the aspirations for transformation that these and other researchers and NGOs have pegged on REDD+ since it was first conceived (Angelsen et al. 2018). In one-on-one conversations, some of these researchers openly acknowledge the environmental integrity problems of REDD+, but suggest that even with an imperfect balance between fossil fuel emissions and carbon credits for reductions in deforestation, REDD+ will yield more benefits than harm. For many of those hoping for such transformation, funding of REDD+ through carbon credits is "the worst possible idea — except for everything else" (Searchinger in Song 2019).

[9] The results to date suggest that while REDD+ project proponents are concerned about tenure, they have little power to make the changes necessary to address the issue, and national governments largely have not taken the series of steps required either (Sunderlin et al. 2018; Sunderlin, Larson, and Sarmiento Barletti 2018)

Other than the lack of alternatives, though, REDD+ has managed to hang on because there are powerful people who see benefit in it. Wealthy companies want it to advance so that they can access cheap, abundant offsets even as they tighten their own belts or compliance markets force them to make deeper emissions cuts. REDD+ remains a broadly popular part of the Paris Agreement for the same reasons — the Global South stand to gain funding, while industrialized countries and their industries can have a way of "meeting" their emissions goals more cheaply. Yet this notion of Global North trading their fossil fuel emissions for tropical deforestation reductions remains contentious — if tropical forest countries are able to reduce deforestation in their countries, shouldn't they be the ones who receive climate change credit? Moreover, climate science is very clear that this kind of trading will shoot the planet well past the 1.5 degree Celsius increase target supposedly agreed upon in Paris. It is for these reasons that the Paris Agreement's Article 6, which allows for such trading between countries, has served as the central sticking point of the last several Conferences of the Parties in the UNFCCC. The same set of questions have also weighed down efforts to create "jurisdictional REDD+" programs that would depend on such emissions trading. The airline industry (the International Civil Aviation Organization, or ICAO) for instance, intends to begin offsetting its emissions with REDD+ jurisdictional programs and projects through its new CORSIA program — Carbon Offsetting and Reduction Scheme for International Aviation. The US state of California has, after ten years of discussion, just passed a global standard that sets the stage for trading between jurisdictions of industrialized countries and tropical forest jurisdictions. Behind all of these efforts is a dedicated industry of "experts" who have now invested between ten and fifteen years in making REDD+ operational and are not going to see it go down without a fight.

The example of California's decade-long effort to pass a Tropical Forest Standard serves to highlight the polarizing, adaptive, and ultimately enduring nature of REDD+ to date — and show the origins of the complexity that keep all but REDD+ "experts" from understanding just what is happening in this field. For the last ten years, the California Air Resources Board (CARB), which regulates air quality and greenhouse gas emissions in the state, tried to add a REDD+ component to the state's cap and trade program. The staff of the program helped to develop a network of jurisdictions who might be part of this program in the future and developed guidelines for how the program would run. Each year, though, concerns from the public about possible harms to indigenous communities, the program's environmental integrity, and the environmental justice concerns of why California oil and gas companies should be allowed to continue harming the poorest communities in the state, offsetting their emissions by paying for uncertain tropical forest conservation. In response, CARB would add new specifics to their Tropical Forest Standard, making the bar higher and higher for jurisdictions. By the time the Standard passed in 2019 — still with significant opposition from some members of the public — it seemed to have set a bar that, as one supporter suggested, "may be too high for any jurisdiction to reach." It also made for some very technical reading that would be hard for the general public to interpret. While REDD+ started as a very simple idea, then, it quickly became much more complex when it encountered the diverse political, social, and economic realities of these regions around the world. How can a single set of safeguards be both strict and adaptable enough to prevent REDD+ from harming forest communities, for instance? All of these details and demands, intended to make REDD+ as rigorous as possible, then, also make it impossible for any but experts who dedicate their lives to the topic to understand and execute. These adaptations that helped REDD+ to endure in concept at the international level, in other words, have put it out of the hands of communities, and maybe even out of the hands of busy bureaucrats in tropical

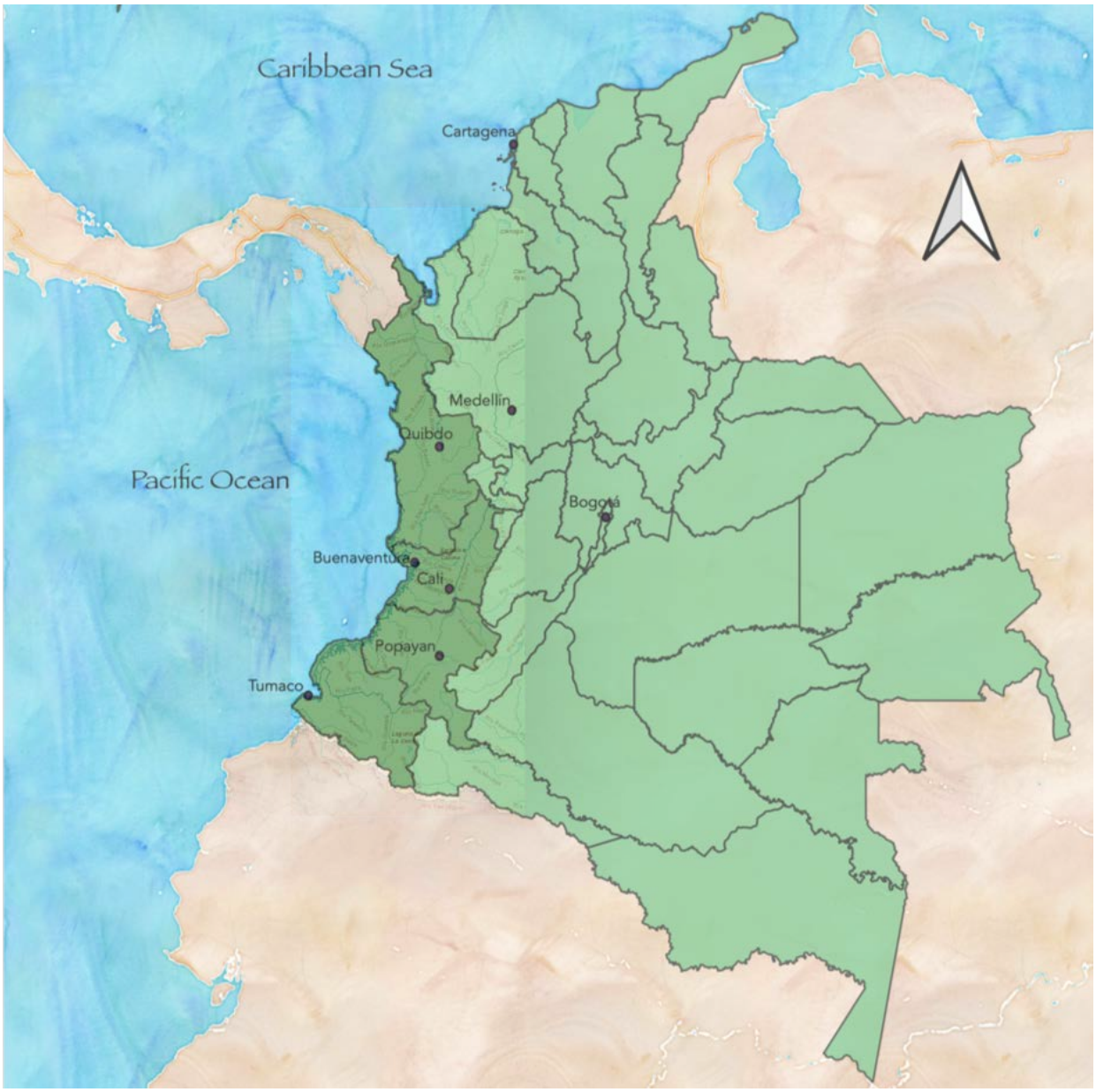
countries, who outsource the issue to NGOs. We will see the material costs of this complexity on the ground in chapters to come.

Finally, for those who see REDD+ as the best hope for forests and climate in a sea of global policy options already considered to have "failed," new sources of funds could test their arguments that the program's initial challenges would be overcome with the additional financial support. The Colombian case of REDD+ funding coming out of a carbon tax is of particular interest to the world, as it seems to offer a strong example of how national laws and public finance can further leverage private finance for forest conservation. It also is important for the world because it tests not only whether such a program can effectively leverage private sector funding, but whether this funding can meaningfully change deforestation trajectories — an assumption that most REDD+ proponents make. Answering this question is a central contribution of this dissertation, as it examines the forest areas and communities that are, in theory, benefitting from Colombia's new law and new funds. It is to the Colombian Pacific, where these globally relevant tests have played out, that I turn in the following chapter.

Chapter 3. Many Candles Lit: The making and unmaking of sustainable development subjects in Colombia's Pacific Lowlands

> Forest carbon projects do not arrive on a blank slate, but in places that have accreted layers of human-environment interactions, memories and imaginaries, institutions, rights and forms of authority (Leach and Scoones 2015, 2).

Figure 3.1. Colombian Pacific



1 Introduction: Autonomy, Adaptation, and Development

Like many of the rural hinterlands of rich, dark rainforests in which REDD+ arrives, the Colombian Pacific (see Figure 3.1) is one in which visions and ways of being, distinct from those that define power in the country's capital and across the world, have thrived for longer than elsewhere. Colonial and Western influences have long left fingerprints and scars there, but struggled to stamp out the local practices they have encountered. These tropical rainforests and their peoples have often found themselves in a protracted battle to avoid colonization and oppression, at turns through adapting the ways of others to their needs, at others through resistance, and at still others through using the winding mangrove paths and twisting river tributaries to hide from would-be colonizers. Some individuals from these forests have embraced the ways of the colonizers, or become colonizers themselves, yet the forests have remained remarkably intact thanks in part to those who have resisted.

This chapter explains some of these key adaptations, resistances, and avoidances of Afrodescendant populations that have shaped the region's history of land use and shifts in *de facto* and *de jure* ownership of land and resources in the region. It offers not only the particular context in which the BIOREDD+ project that is the focus of this dissertation landed, but also the broader historical trajectory of land use and sustainable development efforts of which BIOREDD+ is a part. The chapter describes how the Colombian Pacific attracted much global interest as a test case for the goals of sustainable development in the 1990s. It shows how the very same qualities that made the region appear ideal to outsiders as a sustainable development test case back in the 1990s, however, continue to provoke resistance to this development as imposed from the outside, and attract others to the region that further stymie the progress promised in foreign aid brochures.

This interest among outsiders in the regions is nothing new: the Pacific has attracted substantial interest from foreigners looking to conquer it, tame it, and develop it for centuries. The gold that washes out of the mountains on its eastern border via dozens of rivers, lured Spanish colonizers, starting in 1501, into encounters with the kaleidoscope of tribes that once inhabited the region (Williams 2004, 11). The geography and ecology of the Pacific supported the most resistant of these tribes in their efforts to keep the Spanish out, as constant rain, steep and densely forested hillsides, extreme heat and humidity, and tropical diseases made Spanish exploration and control of the Pacific treacherous.

The attempts of various Spanish conquistadors to subdue and employ the Indigenous peoples of the regions in their gold mines went poorly, first because these peoples were dying off in alarming numbers as a result of their exposure to small pox and other diseases brought by the Spanish — some estimates suggest about 90% of populations died from these diseases — but also because of the refusal among many of them to obey these invaders (Mosquera Torres and Aprile-Gniset 2009; Williams 2004). Some populations also carried out active attacks on the invaders, particularly along the Atrato River, throughout the 17th century (Leal 2018). In most of the Pacific, it took over two centuries from the first encounter until settlements could be established that stuck. During this period, Spanish leaders decided they needed to bring additional labor in from elsewhere to quench their thirst for this precious metal. Soon, many of the several hundred thousand slaves that were imported from various parts of Africa to the Atlantic port of Cartagena — primarily from what are today Mali and Niger, and the countries of the Gulf of Guinea, but also many from the Congo basin - were brought into these lowlands to fulfill this role (Escalante Polo 2002).

From the beginning of these relationships with outsiders in the Pacific, however, resistance and autonomy have necessarily shared space with accommodation and adaptation, and created new and heterogeneous cultures and economies across the region in the process. Firepower, novel goods, and deliberate efforts by the Spanish settlers to sow division and prevent collaboration among Indigenous and Afrodescendant populations weakened their opposition (Williams 2004, 11). While some Indigenous tribes fought back violently against the Spanish, many others were keen to trade with them, creating conflicts between these Indigenous populations (Williams 2004). Various tribes benefited from selling the Spanish the foodstuffs necessary to feed the enslaved crews, or *quadrillas,* working the mines (Williams 2004, 116, 146).

Engaging with these invaders in order to achieve *some* autonomy from them was a tool of necessity that those brought from Africa and their descendants in the region, like maroon communities elsewhere around the Americas[10], carried on from these Indigenous populations. A widespread phenomenon of enslaved Afrodescendants buying their own freedom paying with the gold they recovered from the mines during their one day off a week was one particularly dramatic example of this delicate balance. These slaves, "freed" via auto-manumission went on to begin settling the lowlands along the rivers running between the mountains and the Pacific Ocean, generally leaving the areas further upriver to the remaining Indigenous populations. The distaste of Europeans for residing in these lowlands, and therefore their rather loose control of these mines, helped enable this system (Leal 2018, 28).

In 1821, the revolutionary elites of the newly independent "Gran Colombia" passed a law preventing children born into slavery from being kept as slaves. 1851 marked the end of the legal practice of slavery in Colombia — an end which came primarily because it had become economically impractical (Rosero 2002). The Afrodescendant settlement of the region that had begun over the previous two hundred years by those who had bought their freedom, and others who had escaped, expanded coastward along the rivers and tributaries of the region. Settlement followed the movements of a growing population in search of the productive agricultural lands of the region, silted by rivers overflowing their banks (Mosquera Torres and Aprile-Gniset 2009).

These communities maintained autonomy in part by refining subsistence agriculture, hunting, and fishing practices, but also by controlling the means of production for extraction of goods from their territories for over a century after the abolition of slavery (Leal 2018). These goods included, in the earliest period, rubber from wild rubber trees, vegetable ivory from a local palm used for buttons in England, and, of course, gold from mines new and old (C. M. Leal 2004). Some hardwoods were collected in the late 1870s and early 1880s for the first sections of railroads from the Pacific, while the twentieth century led to new demands for rainforest products, particularly for hardwoods from the region to construct the rest of the railroads, then mangrove to construct homes for growing port cities of Tumaco and Buenaventura but also increasingly to supply the interior. Starting in the late 1940s came perhaps the most wasteful and destructive period for the mangroves of the Pacific, as massive red mangrove (*Rhizophora mangle*) trees were felled for their bark to be used for leather tanning — a practice that lasted into the 1980s (C. M. Leal and Restrepo 2003, 16–17). In the 1960s through the 1990s, pulp and cardboard companies Pulpapel and Cartón de Colombia and their subsidiaries bought small *nato* (*Mora oleifera*) trees from these mangroves to pulp (C. M. Leal and Restrepo 2003). *Euterpe*

[10] On the northern coast of Ecuador, for example, Maroon communities had to negotiate an agreement with the Spanish government in Quito in the 1580s to maintain their autonomy (Lane and Diego Romero, 2001)

oleracea palm, found in tidal forested swamps along the coast, were cut down to extract their cores for Heart of Palm.

In all these cases, those living in these rivers supplied these goods to buyers from outside, providing a source of income to locals that, while modest relative to the market value of the good, could be used to purchase critical goods like salt and nails (Leal 2018). People from the rivers would eventually also travel to sell their produce in the growing Pacific cities, primarily Tumaco, Buenaventura, Cali, and Quibdo — the fruit of the native peach palm (*Bactris gasipaes*) and the native *borojó* (*Alibertia patinol*) were particularly popular there. Such engagement was certainly neither overt rebellion, nor even the everyday forms of resistance Scott calls the "Weapons of the Weak," (Scott, n.d.). Yet Afrodescendant control over the means of production and the lands they resided on allowed for some autonomy for these communities.

Afrodescendant populations living in these rivers could maintain this semi-autonomy, and freedom to pursue their own activities, as long as they had access to land on which they could farm, fish, and hunt. Migration throughout these lowlands to settle new areas had been constant since the end of slavery, and most of these lands were claimed within customary tenure systems by a century after (Mosquera Torres and Aprile-Gniset 2009). Yet in 1959, Colombia's "Law 2" declared much of the Pacific "empty lands" owned by the state, for the state's use (El Congreso de Colombia 1959). This posed a vital threat to these Afrodescendant campesino populations, as their lack of land titles left them vulnerable to expulsion by companies granted forest and mining concessions by the Colombian state. Initially, most communities survived this threat because few companies were interested in developing projects in this more challenging region when the western Andean frontier was still open. Only when this frontier closed in the 1970s did these companies, particularly timber and mining companies, turn their gaze westward (Leal 2018). As the first impacts of this law began to be felt by these communities, they were forced to navigate a delicate balance of resistance and adaptation not only with the forces of capital that came to take the goods they extracted from their territories, but also with the political elite in Bogotá.

Little did these companies know that their land grabs would spark a movement — one that would be bolstered by growing international concerns about sustainable development, biodiversity, and Indigenous rights in the 1980s. Campesinos outraged by the selloff of their lands joined forces with leaders of a grassroots Afrodescendant movement in Colombia, seeking to address racism, discrimination, and land rights (Paschel 2018), recognizing that these shifting discourses could support their cause. Through a process described in detail below, they managed to negotiate for the Colombian state to provide titles to Afrodescendant lands across the Pacific, negating Law 2.

The land titling process that began in the 1990s generated a wave of support from international development and conservation to help newly-created Afrodescendant community governance institutions, known as "Community Councils," find their footing — and live up to the expectations that the new law set for them. USAID's BIOREDD+ program appeared in the region in late 2011, following on the heels of a series of other combined conservation and development efforts that began with this sustainable development euphoria of the 1990s. Some communities accepted BIOREDD+, while others considered it and ultimately rejected it. The discussions leading to these decisions exemplified the different paths communities have taken over time in their efforts to balance between trying to improve the material well-being of their people via different forms of development, without letting these harm their territories and erode the autonomy these territories afford.

BIOREDD+ arrived about fifteen years after many communities in the program had been pushed into Colombia's civil conflict and narcoviolence. In many of these communities, aid to support the Community Council organizations of the 1990s was succeeded by US funds aimed primarily at reducing coca expansion across the region. The presence of these armed actors, often using these forests and the communities living there for cover, required Afrodescendant and Indigenous peoples of the region to negotiate with yet more actors, finding themselves caught in both real and metaphorical crossfires.

Like all development efforts, BIOREDD+ landed on a highly contoured landscape. Acknowledging and detailing these contours and their historical forces that created them illuminate why the program takes the shape it does on the ground. It is to this end that I use this chapter to show how the idea of the region as a biodiversity hotspot and a land of ethnic difference, and how the accompanying need to promote sustainable development there, created sustainable development subjects out of the Afrodescendant populations living there, and shaped these communities' interactions with outsiders. Colombia's 1991 Constitution and subsequent legislation enshrining collective land rights for Blacks dramatically altered the prospects for these communities, representing yet another set of compromises of adaptation for autonomy. The vagaries of wars waged across the region in the years since the Constitution took effect — between revolutionaries, the army, and paramilitaries, and between the United States and cocaine — have strained these efforts and dashed hopes of greater autonomy for the Blacks of the Pacific that Afrodescendant rights organizations had advocated, such as the Process of Black Communities (PCN). This helps us to understand, then, that BIOREDD+ was just one in a long line of compromises proposed by outsiders with which the communities of the Colombian Pacific have had to contend.

After exploring the broader historical arc of the relations of Blacks with their environment, outsiders, one another, and the state in the Pacific, this chapter narrows in on the neighboring rivers where I conducted the core of my field research, Los Cocos and La Hormiga. While the Pacific lowlands are framed in common narratives among those in the Andes as homogenous, and those attempting to represent these Afrodescendant communities to the wider world often must also attempt to portray the communities' actions and desires as a united front to consolidate their power as minorities in the face of an onslaught of would-be colonizers, the people and communities of the Pacific lowlands are wildly diverse, with distinct geographies, histories, economies, and cultural practices. Los Cocos and La Hormiga, as neighbors, share more in common with each other than the rest of the Pacific. Yet the divergent paths they've followed in their constant negotiations with outside forces illustrate the variation that exists among responses of communities of the Pacific to these forces. The way these two communities navigate through daily practices of "modernity," development, and violence, all in the context of a Colombian law that enshrines a notion of Afrodescendant culture and ethnicity as the quintessential sustainable development subject, demonstrate how highly specific politics and particular individuals are critical to how these paths spin themselves out. While I introduce these communities and their different paths in this chapter, the rest of the dissertation will dig into the way BIOREDD+ has both shed light on their divergences, and itself exaggerated them.

2 Settlements and Livelihoods

The Afrodescendant populations that expanded out across the Pacific in the wake of emancipation in 1851 adapted to the challenging climate conditions by combining practices learned from Indigenous populations of the region with traditions brought by their ancestors

from a diverse cross-section of ecosystems in Africa — along with their own constant innovations in response to dynamic local contexts. Breadfruits (*Artocarpus altilis*) were a staple of their diets, as were plantains, sugar cane, tubers, corn, and fruit from the local peach palm, *Bactris gasipaes* (Leal 2004, 175). Oils were made from this and another local palm fruit, while fishing and hunting met protein needs. Eventually, new crops were introduced that quickly proved their worth, including other forms of bananas and plantains, and the now-ubiquitous taro (*Artocarpus altilis)*, known locally as *papa china (*"Chinese potato").

Locals produced crops using "slash and mulch" agriculture along the more fertile river flood plains in the middle of the rivers and along the river's lower tributaries. This involved broadcast seeds or cuttings across land where natural vegetation had been cut and left to decompose to provide additional nutrients to the soil — an adaptation to the year-round rains that made burning this vegetation impossible. They left vegetation to regrow after a few years of farming, with families maintaining a handful of agricultural plots to work in rotation. They passed these plots down to successive generations, sometimes divided into multiple parcels in the process. People from one River have commonly settled with someone from another to diversify the gene pool, which leads to long trips between rivers to maintain familial agricultural plots (Mosquera Torres and Aprile-Gniset 2009).

According to the village elders we interviewed, families also often maintained multiple residences to reduce travel time to their agricultural plots, settling in one area for the corn season, for instance, in order to keep birds and wild pigs from destroying their critical corn crop, and making their way to another near the coast when the fishing was good. In most rivers, these residences were dispersed along the riverbanks and hillsides running up from them to provide easy access to crops. Residents elevated their homes on stilts to allow for the multiple times a year that the river would overflow its banks — a boon to crops in the long term, though destructive in the short term if the floods stayed too long.

Residents would paddle to their neighbors' homes for visits, and swap labor for larger projects. They'd get together to press sugar cane in their handmade mills constructed from palm trunks (see Figure 3.2 for an example of this machine used today).

Figure 3.2. Carlos accompanies the full-time team in La Hormiga pressing sugarcane, using a *trapiche* made of *chontaduro* palm trunks.

Starting in the first decades of the 1900s, the Catholic Church and state collaborated to encourage Afrodescendants to concentrate into villages so as to better control and "develop" them (Leal 2018, 165). Families increasingly opted to maintain a home in a village, particularly once schools arrived — first from the church, and later from the state.

Even after settling, though, every individual still depended on many livelihoods — or had "many candles lit," as locals describe it. Such diversity is required to survive in this subsistence world, reducing the damage caused by any single activity not panning out (Rosero 2002, 548). These practices continue today. Community members maintain multiple agricultural plots and crops in production at any given time, harvest wood, hunt, and fish. Women do most of the cooking and much agricultural work, and also process the crops, making cane syrup, cane liquor, and a cornucopia of corn products. They also construct crafts, such as baskets or sleeping mats out of local products. Women living near the mouth of the river harvest shellfish from the muddy mangrove beds, while men also participate in agriculture, harvest wood for subsistence needs, fish, and hunt (see Chapter 5 for more on these livelihoods).

These diverse livelihoods have been punctuated, as noted earlier, by harvests of valuable materials to be sent to the interior of the country or exported. The "specialization" that occurs within these rivers is commonly by River zone, or ecology. The upper parts of the rivers have often remained devoted principally to gold mining, being closest to where mining camps were originally, with less nutritive soils, while the middle zone has focused on agriculture, and the lower zone on fishing. Some individuals still simply move every few months to take advantage of the seasonal peaks offered by each zone, but barter between these zones of the River has also helped to integrate them even while each zone maintains its specialization, and is still a common practice. Smoked fish from the mouth of the rivers can be found in the upper zone, traded for gold sourced just upstream.

Only in the mid-1900s did the rivers around Buenaventura begin to lean more heavily on one particular activity for commercial ends — that of harvesting trees from the rainforests. Even this one livelihood, however, as we shall see, included a range of activities that varied by season and river zone.

9.9 Woodcutting

Cutting wood was long a critical part of life in these rivers, one of the "candles lit" as residents used local hardwoods to construct homes, and carve canoes, paddles, and gold-mining pans. Commercial harvests began slowly after emancipation. The expansion of wood harvests for commercial purposes, which depended entirely on the expertise and labor of the locals, took off when the Colombian State began seeking hardwoods for railroad ties to connect the Pacific ports of Tumaco and Buenaventura to the interior in the late 1870s. Locals quickly learned to adapt, adjusting their skills to the state demand for their goods and labor.

When the dream of the railway disintegrated in the 1880s, it was revived in the early 1900s under a president ambitious to continue connecting the country (Leal 2018). In the interim period, the value of wood for both merchants and their suppliers — seeking new income after international vegetable ivory markets dried up — inspired an expansion of the wood trade for other ends. Sawmills began to pop up across the region as domestic demand for these fine woods grew. These sawmills had different periods of prosperity along the coast, as Leal and Restrepo's

work shows, booming earlier around Tumaco, and then expanding in areas to the north a bit later. Wood taken from southern rivers began to be shipped to Buenaventura starting in the 1970s (Leal and Restrepo 2003).

As the interior's thirst for hardwoods expanded and access to the interior improved by the mid-1900s, a culture of "*tuqueros*," or "professional woodcutters" arose (Restrepo 1996): another form of adaptation to these demands. The practices of the *tuqueros* were physically demanding, but far from profit maximizing — with few inputs other than an axe, it could take months, for instance, for a small team to harvest a hundred trees, such that any given *tuquero* may only account for the felling of a hundred trees per year. Between the late 1950s and early 1990s, though, there were so many different demands for wood, particularly around Buenaventura, that these *tuqueros* could rotate from one woodcutting activity to another year round based on the climate and immediate demand, and never want for work. As one *tuquero* I interviewed from La Hormiga put it in my interview with him in February of 2016, "In the era when I began to work and I got my wife, there were a lot of opportunities: a work that we called mangrove cutting, where beams and stilts were cut out. Wood was harvested for pulp, for the railroad, and for round wood.[11] It was during this period that the interviewee describes that wood harvesting became the predominant source of income in these communities.

Figure 3.2. *Tuqueros* in La Hormiga preparing a recently cut log for sending down a hillside sluice to the tributary below**.**

[11] Round wood, or "*troza*" is the most raw form that wood is sold in, and is still the most common form of selling wood from communities where access to sawmills in the community is limited. A *troza* is a piece of trunk that is 3 meters long, cut on the hillside where it is harvested. These large trunks are then directed down toward a tributary, maneuvered from their cutting site to a creek bed on jerryrigged tracks, and then allowed to wash down the creek in the next hard rain. They are then recovered in the tributary and tied into long links called "*chorizos*" or sausages, sometimes with up to 600 or more *trozas*, and pulled behind small boats with outboard motors to the local city. Riding through the waterways that run between mangroves near Buenaventura, one commonly comes across these chorizos of *trozas*, which may take several days to bring to the city. This practice is only possible with lighter wood that floats in the water. Heavier wood must be carried in to the port on boats.

This boom was not to last, however, as trees of any value became harder and harder to access, markets shifted, and new conservation laws made participating in cutting, particularly cutting of mangrove, more risky. By the 1990s, cutting wood had become a trade of last resort in many of these rivers, owing to the poor return on a livelihood that required extreme physical exertion and risks. So poor was the pay and uncertain the weather conditions required for the harvest that woodcutters often ended their months of work in debt. “You can always tell the house of a woodcutter,” several people told me, referring to the fact that they were typically in poor condition: the owners were often away, and earned too little to invest in repairs. Where few other income-earning activities are available, however, and community members do not receive remittances from their family in the cities, many still end up relying on this activity, dangerous as it is, for some portion of their income. Though the work is hard, there are also some who continue to participate because it is linked to their identities, providing meaning as they and their family members have been doing it their whole lives.

This history of woodcutting in the Pacific is important to the story of BIOREDD+, given that the USAID program was primarily aimed at slowing wood harvests. It is also an important example, however, of the ways that adapting local practices to extract resources to meet demands of external markets is a double-edged sword, reaping benefits for a time, but leaving woodcutters with few other options, and ultimately dependence upon a system that is no longer working for them.

3 Community organization and state relations

Trade within rivers, family ties, and camaraderie among neighbors to manage the many challenges of living in such a hot, wet climate with infertile soils created social bonds between residents on these rivers and a sense of identity tied to these territories. Leaders arose to bring people together toward beneficial social ends. For many years, the “catechist” leaders at church, trained by local priests, and teachers at schools, were the most natural community leaders as populations concentrated into villages around these institutions. In the late 1950s, the state began encouraging local communities to create another village institution connected to the state for the end of promoting local “development” , in the form of “Community Action Boards” (JACs, for their Spanish acronym). The JACs would help to organize the communities to take care of themselves and request what they needed from the state. These boards were quick to fall into the clientelist politics that have long dominated Colombia — at the time, alliances were either to liberals or conservatives (Asher 2009). Yet successful JACs were, often through much bargaining for votes, able to secure support from officials for critical infrastructure — aqueducts, for instance, or later for large diesel-powered generators and power lines.

With the exception of the work of the JACs, the schools, and some minimal support for health care, the Colombian state has always felt quite distant from within these communities. Law 2 of 1959 institutionalized the primary narrative among national leaders about the Pacific as a vast reserve of resources for the Colombian state to extract and grow wealthy upon. Implicit in the Law was also the notion that the resident Afrodescendant and Indigenous communities occupying these lands were using them unproductively. By declaring nearly the entire Pacific region “wastelands,” and official property of the state, the state laid the groundwork for extraction across the region to benefit politicians and their corporate allies. In the wake of the passage of Law 2, some individuals and communities sought to have their lands officially registered and titled by the state, recognizing the dangers posed by state mining and forest

concessions. Through this early push for land registration, these communities attempted to adopt the tools of the state to resist the same state's takeover of their lands.

State data about the populations of the region has always been sparse, making it difficult to get accurate figures about demographics in these Rivers. One trend is clear, though: a sizable portion of individuals from the rivers have been migrating to cities for many decades now, as a result of natural disasters and violence, to seek different economic and life opportunities, and, at times, in response to the social and ecological limits on their home territories. Given the land's low fertility and the need for a single family to have several plots of land to cultivate, there was only so much productive land that could be divided. High birth rates within these communities, until the last thirty years, motivated migration to less populous rural regions or the city. Tumaco, Buenaventura, Quibdo, and Cali have received the greatest number of these migrants, though many have also made their way up into the Andes, to Medellín and Bogotá. Migration has also been driven by violence over the last thirty years.

These numbers are difficult to find, in part, because throughout most of Colombian history, there was either a clear official promotion of whiteness among the elites of the country, or a celebration of the county's mythical harmonious mixing of races, known as *mestizaje*. In law and practice, though, mestizaje's unspoken goal was the whitening of the population Friedemann, et al., 1984; Wade, 1995. Blackness was not an officially recognized or celebrated racial identity. As Paschel notes, "In 1960, in one of the rare instances in which the central Colombian state did collect ethno-racial statistics, the overwhelming majority of Colombians were identified as mixed: 47.8 percent were identified as mestizo and 24 percent as *mulato*. This led census officials at the time to conclude, 'Very few countries give less importance to race than this one. Whites, Blacks and Indians live together and mix without any fuss.'" (Banco de la República--Departamento de Investigaciones Económicas 1960; Cited in Paschel 2018, 40). One of the first anthropologists to devote her career to studying Afrodescendant communities in Colombia, Nina de Friedemann, famously suggested that Blacks in Colombia were "invisible" (Friedemann 1984).

This invisibility was also manifest within the Afrodescendant community. People of the region did share many practices and saw themselves as different to farmers of other rural regions, and a tradition of Afrodescendant people calling one another "*libre*" (freedman) continued through the 20th century (West 1957). Yet anthropologists have suggested that there was little sense of a shared ethnic or racial identity among Blacks across the region until the end of the 20th century Restrepo, 2004 (Restrepo 2013a).

4 Co-Formation of Black Identity, Black Politics, and Black Conservation in the Pacific, 1970-1991

The evolution of a Black movement across the Pacific, and accompanying political and sustainable development subjects, is critical for understanding the governance structures of the region today, and the way sustainable development efforts, including the BIOREDD+ program, have interacted with these governance structures and subjects. A dozen or so dissertations and books, along with many articles, detail the construction and privileging of a Black ethnic identity among these communities across the Pacific, enabling them to be recognized as subjects within the Colombian Constitution of 1991 and later to receive titles to their lands (e.g., Wade, 1995; Vergara Figueroa, 2013; Restrepo, 2013; Paschel, 2018; Pardo, 2001; Oslender, 2016; Ng'weno, 2007; Hoffmann, 2007; Grueso Castelblanco, 2000; Escobar, 2008; Asher, 2009; Paz Rentería

2014; Agudelo 2005). Rather than attempt to fully recount the remarkable individuals and nuances of the events that generated this dramatic legal shift in the region, I focus here on how a timely intertwining of local, national, and international circumstances generated space for this radical shift and created the sustainable development subject in particular. I emphasize the way these circumstances continue to affect Afrodescendant communities across the region, and shape the role that international aid organizations, like USAID, play there.

5 Liberation theology meets civil rights

Following one thread of these circumstances takes us to the 1960s, when liberation theology priests of the Catholic church, including the widely beloved archbishop of Buenaventura, Gerardo Valencia Cano[12], began calling on Afrodescendants of the Pacific to claim various rights from the state, and calling on the state to provide these (Martínez 2012, 120). He was one of the first non-Afrodescendant leaders in the country to speak of Blacks as having a distinct, and positive, identity (Martínez 2012, 120). At the same time, a small intellectual movement of Blacks, originating from the country's coffee region, known as Cimarron, began developing a vision for the fight for rights of Afrodescendants in Colombia, based on their close study of liberation movements around the world (Hoffmann 2002; Wade 1996). Eventually, these secular and religious interests joined forces, as priests in Chocó brought in the director of Cimarron to talk about the struggles for Black liberation around the world and the need for a similar struggle in Colombia (Agudelo 2005).

The encounter was designed to encourage the Afrodescendant leaders of this region to begin to think about organizing themselves in response to the state's granting of lands as timber and mining concessions on which Afrodescendant *campesinos* resided (Agudelo 2005, 176). The "closing of the frontier" for both mining and timber harvests in Antioquia catalyzed this state-enabled corporate push into the Pacific (Leal 2018). The international aid organizations supporting Afrodescendant farmers in the region, as well as the religious leaders guided by liberation theology, were concerned about this progression, and supported these farmers in organizing for recognition of their land from the state (Asher 2009, 39). As anthropologist William Villa explains, even though there was not a clear outward ethnic or racial identity established among these communities at the time, various leaders recognized the value that building — or drawing out — such an identity could offer them in their fight, having seen the Indigenous communities around them receive land titles based on their ethnicities (Villa 2000) [13]

They were right: the ensuing battle for land rights in the northern Chocó, starting in the early 1980s, led to the consolidation of a common identity, the creation of a coherent set of demands, and the organization of communities across the Pacific. Though initially some of these Afrodescendant farmers in Chocó were hesitant to mark themselves as either Black, or as stewards of the land (Agudelo 2005), members of the Integrated Farmer Association of the Atrato River (ACIA) came to recognize the strategic value of claiming a common ethnic identity that also positioned themselves as the best protectors of the land. This identity could serve as a

[12] Archbishop Valencia Cano died tragically in a plane crash in 1972. People of the region still sing the song written afterr his death to celebrate his life and work.

[13] Asher also notes that the Assessor for the Choco's organization of Embera Indigenous peoples, Esperanza Pacheco, encouraged Black farmers in the region to organize for land rights based on the local success of Embera organization. This helped to spark the generation of the United Peasant Association of the Atrato River (ACIA) (Asher 2009, 38)

foundation from which to fight for recognition of their land. To the surprise of many, they won an agreement with the state that became known as the "Agreement of Buchado," whereby the state government granted 600,000 hectares of land for the residents of the River in July of 1987 (Villa 2000). ACIA's victory became an example for Black communities across the Pacific, spread by church leaders. Community members in villages across the region still describe how these church leaders "lit the flame" in these communities to organize them to fight for their rights and their lands. The clergy helped the local stand-in for the clergy in these rural zones, known as catechists establish "male" and "female" leadership committees in each village, bringing these village leaders together at the level of the River to build organizational strength against these threats (Interview with community leader and catechist, Los Cocos). These groups evolved to form "Ethno-Territorial Organizations," across the Pacific. This base of popular support was an important mobilizing force to ensure that Afrodescendants were recognized within the 1991 constitution, and after to legislate and implement Law 70.

The Organization of Black Communities, or OCN (later the Process of Black Communities, or PCN), headquartered in Buenaventura also served a particularly important role in the late 1980s and early 1990s, organizing communities alongside the clergy and bringing their demands to the national government. The OCN included young scholars who had grown up in the Pacific, as well as some former members of Cimarron, all of whom were well-versed in critical theory and the history of Black struggles around the world, including in Colombia (Asher 2009). They ended up prioritizing at a national level the fight for land in the Pacific, as they saw the struggle for autonomy as running through community land rights — "territory is life," as people in these communities commonly proclaim today. The OCN encouraged them to embrace Black identities in the process — identities that the OCN argued was about a particular political position and mindset, rather than race (Martínez 2012, 166–68).

It was ultimately the blending of these church leaders, Afrodescendant farmers determined to hold on to the lands on which they depended, and young leaders of a fight for the right to differentiation for Black people in the Pacific that wove together the cultural traditions of the Pacific with the race of the people, giving name and form to an ethnicity in the process. Though the formation of this Black identity was neither uniform nor universal, it was strong enough in combination with the concern among those living along the rivers of the Pacific of losing their lands to lead them to demand their rights under its banner. These demands helped to create space for privileging a Black ethnicity and the rights that went along with it within Colombia's new constitution of 1991, described in detail in the next section.

6 Sustainable development, indigenous land rights, and the sustainability dividend of community tenure

Internationally, meanwhile, a growing movement to recognize Indigenous rights, as enshrined in 1989 within the International Labour Organization Convention 169 (the Indigenous and Tribal Peoples Convention), accompanied the slow growth of state recognition of a multiplicity of ethnicities around the world (Van Cott 2000). A blending of development and conservation goals at the international level into "sustainable development" had begun taking form in the Brundtland Report of 1987, and coalesced in the 1992 Río United Nations conference (Asher 2009, 13) (Escobar and Pedrosa 1996) (Van Cott 2000) (Escobar 2008). This coincided with academic work of Elinor Ostrom and others at the time that suggested that local communities, under the right set of circumstances, had every reason to maintain their natural resource bases

and commonly developed institutions to do so effectively (c.f. Acheson 1975; Berkes 1985; Cox 1985; Feeny et al. 1990; Ostrom 1990). As these international processes played out and this body of academic work expanded, subsistence communities were increasingly celebrated internationally as guardians of sustainability, rather than vilified as environmental destroyers. In the process, particular ethnicities have been elevated as more likely to have a "sustainable relationship" to the land – an offspring of the concept of the "noble savage" that Ulloa calls the "ecological native" (2005) (Restrepo 2013b; Ulloa 2005).

In the halls of power in Colombia as the 1990s kicked off, a push from outsiders was gaining traction to develop a new Constitution, which would advance peace with guerrilla groups, while protecting the ruling class, which was "literally threatened with death" as a result of the horrific drug wars (Palacios 2003, 334). Establishing land rights was a critical part of this negotiation, so though ethnic rights were not initially of prominent concern in the decision to develop a new Constitution, the right to territory was a strategic angle that Black organizers and their representatives at the table could take to advancing Black's "right to difference." It is to this Constitutional process, which incorporated key pieces of these international and Black identity movements, and the key policies that followed to which I turn next.

7 A new Constitution

The late 1980s was a violent and chaotic time in Colombia, and a precarious moment for Colombian institutions. Both guerrilla violence and drug violence were at their peaks in urban areas. Judges, police, and politicians were being killed daily for their roles in trying to limit the power of the cartels, or for siding with one cartel over another. Late 1989 through 1990 was particularly gruesome: three presidential candidates were assassinated, and deadly bombings took place at the office of the leading newspaper in Bogotá, the Administrative Department of Security, and a commercial passenger plane. People began to demand a radical change to halt this downward spiral of violence.

The disorienting moment left an opening for radical change, which, among other political changes, took the form of the development of a new constitution between 1990 and 1991. Through this new constitution, the embattled central government sought to increase inclusivity in the government and lay a foundation for peace, address some of the deep wounds that had led to the ongoing civil conflict, resolve an institutional crisis, and improve the country's reputation internationally (Hoffmann 2002). Though rights for different ethnic groups were not top of mind for most Constitutional Assembly delegates, the pressure from Indigenous and Afrodescendant leaders, drawing on international shifts of that era, began to advance the effort to overturn the *mestizaje* discourse that had undergirded ethnic and racial policy conversations of the past. Many constituents believed that by addressing citizenship rights and giving Blacks access to enforced private property of their land, they were sufficiently addressing their demands (Asher 2009, 22). Yet leaders of the movement in the Pacific suggested this extension of neoliberal rights to Afrodescendants in the Pacific was neither in their best interest nor aligned with their traditional practices. What they wanted, instead, was *autonomy* and *differentiation*. The leaders pushed instead for *collective* land titles from the government, in line with the Indigenous model.

A key piece of this argument in the Constituent Assembly would be to show Afrodescendant's ethnic differences, and the need for them to have both collective land titles and autonomy to maintain their practices and thrive. Anthropologists who had brought to light the links that the traditions of Afrodescendants of the Pacific had with people of Africa and rural sociologists were called into the Constitutional Assembly to testify that Afrodescendants of the

Pacific did in fact have some unique ethnicity that was worth acknowledging and conserving and that collective titling could support such conservation. Colombians were ready to perceive this difference in Indigenous communities, but much slower to recognize it in the less-studied and recognized Afrodescendant communities. Anthropologist Nina de Friedemann was particularly important in this fight. In 1991 she began writing a short book outlining the history and importance of Blacks in Colombia, to support the work of the Constituent Assembly. She formally published the work in 1995 to commemorate Law 70. In it she argued, among other things, for the role that Blacks played in the conservation of the Pacific: "The diffusion of knowledge about Black culture with fingerprints of an African past will allow the nation to understand their contribution…in the protection of the biodiversity of the forests of the Pacific littoral" (De Friedemann 1993).

These two arguments — that Blacks in Colombia had a distinct culture shaped by their African roots, and that they were environmental stewards — were key to advancing the fight for their collective land rights. This environmental stewardship argument carried over into discussions of the Assembly. The Subcommittee on Special Cases of the Constituent Assembly, assigned to work out what "concessions" to Indigenous and Blacks would look like within the Constitution, noted in their report: "If one examines the regions of the country where Indigenous and Black populations live, one can see perfectly that they are areas whose ecological maintenance is key for the economy and future of the country… This leads one to conclude that ensuring the territorial autonomy for those populations that inhabit those lands, and that with their practices have shown themselves to be fully capable of conserving them, is the best option for Colombia with regards to environmental management in these territories" (Fals Borda and Muelas Hurtado 1991).

The Assembly ended up integrating various articles into the Constitution as a result that celebrated and protected a pluriethnic state. Article 7 stated, "The State recognizes and protects the ethnic and cultural diversity of the Colombian Nation" — while Article 8 said that "It is the obligation of the State and of individuals to protect the cultural and natural assets of the nation." Colombia's newfound recognition and protection of different ethnicities in the country included specific recognition for Afrodescendant communities (Van Cott 2000; Ng'weno 2007). More specific rights were enshrined for Afrodescendant communities as well: two seats in the national house of representatives would be specifically elected by Blacks, and designated positions on the boards of various national bodies were held for Afrodescendants.

The Constitution's Article 55 ("AT 55"), however, served as the centerpiece of the new rights for Black communities. AT 55 required a law within two years to provide a process for collective land titling for Blacks living in the Pacific (and other places in the country with "similar conditions"), and called for protections for the rights and cultural identity of these Black communities (Rama Judicial, República de Colombia 1991). AT 55 mandated that the development of this law be built with the support and recommendations of a commission — the Special Commission on Black Communities (CECN) — that would study the matter. Article 55 was controversial enough among the delegates that it was included only at the last minute, and only when the delegates promoting it threatened to vote against the constitution if it were not included (Asher 2009, 47). While leaders of the Black Communities' Organization (OCN, later PCN) pushed the state to grant greater autonomy to Blacks in this region, akin to or greater than what the Indigenous peoples would be granted, they failed to get this far. Also neglected in this effort to fight for rights to land, difference, and autonomy of Blacks in the Pacific were rights more specific to urban Blacks, in realms like equal employment treatment, affirmative action, or

access to basic infrastructure (Wade 2009). This was a significant decision, the origins and outcomes of which Paschel details in her 2018 book (Paschel 2018).

The legislation of Article 55 after it was enshrined in the Constitution was not easy (Paschel 2018, 106–9). Yet the excitement among Black communities on the ground and the group of young leaders of the PCN helping to organize them led to a groundswell of support from the Pacific that carried Law 70, debated and controversial as it was, over the finish line. The law was finally signed by Colombia's president, Cesar Gaviria, in August of 1993, creating a new political subject, and enabling community titling of millions of hectares of land across the Pacific over the next twenty-five years.

8 Law 70

The backbone of the Bill signed into law in August of 1993 gave legal recognition of Blacks as an ethnic group, guaranteed protection of their culture through appropriate education and development, and allowed for the granting of collective ownership titles of the littoral lands of the Pacific through the legal entity of the Community Council.

The fingerprints of the Process of Black Communities (PCN) can be found throughout the 68 articles and eight chapters. The law is justified using the same discourse of the PCN: the lives and cultures of Black communities are grounded in their territories, therefore they need security to these territories and autonomy to use these territories and continue their practices as they like in order to continue to be Black. According to this discourse, this will also provide benefits to the state in the form of the conservation of these lands because the traditional production practices of these communities are inherently sustainable (El Congreso de Colombia, 1993).

The "responsibility" of Afrodescendant communities to conserve their lands is first captured in Article 5, in which the Community Councils of these newly-titled lands will be required to "be responsible for the conservation and protection of the rights of the collective land, the preservation of cultural identity, the use and the conservation of natural resources…" Article 14, meanwhile obligates the communities to "observe the norms about conservation, protection, and rational use of renewable natural resources and the environment." A whole chapter, Chapter 4, is then dedicated to the subject. Among other things, this chapter promises that the state will provide the support necessary to help the communities to meet their legal conservation obligations (Article 21). Yet clauses about creating nature reserves within the collective territories (Article 25) and that require communities to develop forest management plans (Article 24) suggest that the state does not fully trust that communities will meet these conservation obligations.

Law 70's third chapter focuses on the process by which the lands will be titled, while Chapter 5 focuses on mining — the text is clear that the communities do not own subsoil rights. Chapter 7 focuses on development, offering these communities the "right to economic and social self-development, attending to the elements of their autonomous culture" (Article 47). Finally, the government commits in Chapter 8 to dedicating the necessary resources to the execution of this project, though, to date, aid from other countries has covered most of the costs of the law.

Executive Decree 1745 laid out the first regulations associated with the new law in 1995, adopting "procedures for the recognition of the right to collective territory of Black communities," and specifiying the form that new territorial authorities, the Community Councils, would take (Ministerio del Interior and El Presidente de la Republica de Colombia 1995).

The purpose of these Community Councils was to govern and represent more directly the communities and to help clarify the theory of "autonomous development" that had been central

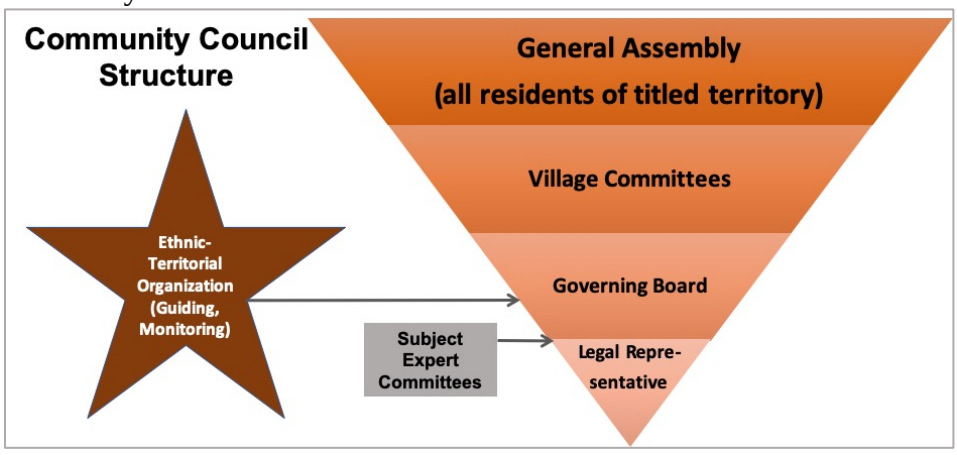
to the Black movement's mission from the start -- including by creating practices of autonomous development within each community. They would work with and receive support from the state and other development institutions in carrying out their missions. The Community Councils were envisioned as a form of autonomous deliberative democracy, that would build on the groundswell of community engagement that had blossomed in the lead up to the Constitutional Assembly in 1991 and the passage of Law 70 in 1993.

Black communities would, via these Councils, get to "decide their own paths." Yet there was dissension within the Black movement and those writing this law about whether these institutions would be able to fulfil these lofty missions. For many leaders, these Councils were already a compromise, as a form of state cooptation (Aramburo interview El Espectador 2018). These leaders sought even greater autonomy for their communities, via a return to the "Palenque" model, which would have joined together more communities under one governing enterprise, and have created further separation from the state. Unsurprisingly, a state that had been under siege from revolutionary guerillas for 50 years was hesitant to let Black autonomy go so far. The many economic interests that these politicians also had in the region, and their concerns about having to negotiate with a much larger block in order to advance these interests, also forced the compromise of instead creating these smaller Community Councils at the river, basin, or even village level.

9 The Community Council

This emphasis on deliberative democracy shaped the form that the Councils would take (see Figure 3.3), while the framing of Afrodescendants of the region as sustainable development subjects defined what the state and other outside donors and NGOs would want them to focus on. The General Assembly, or the whole population of the river, was the ultimate authority that the Governing Board (*junta*) would respond to. The Governing Board was elected by the Assembly, which in turn was elected by representatives from each village chosen to govern at a village level (village committees). These elections took place every three years. Meetings ("Assemblies") of this body, were required every year at minimum to be sure that the Assembly could provide input to the Governing Board's actions and address any issues that had arisen in intervening months. Extraordinary Assemblies would be held whenever a particularly critical and urgent challenge arose.

Figure 3.3. Community Council structure



The Governing Board included a President, Vice-President, Treasurer, Secretary, and several other members. The Legal Representative, technically not a member of the Governing Board, was meant to be the official who would sign off on actions and projects on behalf of the community in external spaces, in response to the desires of the Governing Board and Assembly. All decisions of the Assembly were to be developed by consensus – or, failing to reach a consensus, by the majority present.

According to Decree 1745, the Governing Board, responding to the desires of the Assembly, had five key roles:

1) Overseeing protection of rights of collective territory and the integrity of the territory;
2) Administering the use and conservation of resources in the collective territory, following state laws and management plans approved by the Assembly;
3) Developing and executing plans for economic development, and working with outside entities to undertake this development;
4) Developing internal rules for governing the territory and implement these, particularly resolving conflicts as "honest brokers";
5) Coordinating with other state and external representatives.

Decree 1745 called on the relevant national and state entities to support the Governing Boards in executing this mission. Yet the Governing Boards would receive no funding from the state to support their missions. Instead, the Boards would need to finance themselves via the development projects they brought in for the community, taking five percent of the total value of any project invested in the community to cover their administrative costs. This led to challenges to the Boards' ability to execute their missions, and a disproportionate emphasis by the Boards on securing external project funds, both of which have ultimately eroded their legitimacy.

This push for recognition and these collective land titles in the early 1990s required compromise, including between parties within the Black movement, and among state actors tilting toward different ends (Asher 2009; Paschel 2018). These compromises resulted in paradoxes, including as individuals and organizations from outside these communities encouraged Afrodescendant populations to adopt identities that had been set forth as essential fact for political expediency. Moreover, the freedom for these communities to pursue autonomous development was a key outcome of this process for these communities, yet no one, of course, had a roadmap to accomplish this. The unending process of each community to collectively build a path toward autonomous development amidst new unfunded administrative requirements, in addition to the external pressures and internal divisions that the "Black movement" and the newly officially designated "Black communities" of the Pacific have faced, has proven much harder than getting a law passed that offers them a right to this autonomy. Unsurprisingly, then, as Asher has documented, these tensions and paradoxes – within the movement, between its multiple goals, and even baked into the text of the law created to address the movement's demands – roared back to life as the process began to determine how Law 70 and its aspirational vision would be implemented (Asher 2009).

10 Development and Conservation in the Pacific

During the last decade Colombia has received more than $1-billion in American aid and there has been some $1-billion in private investment. Colombia…is often described as the showpiece of the United States-sponsored Alliance for Progress, but if the aid program has touched

Buenaventura in any way, it is not apparent. It remains a showpiece of backwardness, destitution and despair, where old Alliance posters advertising Alliance campaigns are peeling from decrepit walls and most of the people seem to spend their time standing around or shuffling through the street (Browne 1971).

This vast region harbors enormous forests, fishing, and mining resources that are required immediately by the nation; the region constitutes an area of fundamental geopolitical interest for the country. Hence the inevitability of a state policy capable of understanding and assuming the integral development of the Pacific Littoral as a great national project. This project can no longer be postponed (DNP (Departamento Nacional de Planeación), CVC (Corporación Autónoma Regional Valle del Cauca), and UNICEF 1983).

International investments descended upon the Colombian Pacific quickly to consolidate the Black sustainable development subject that emerged from Law 70, and to prove to the world that such a subject existed and was worth investment.

The region was hardly new to the notion of development, however. Missionaries sought to civilize its Indigenous and Black populations, while businessmen sought to exploit them — they were often at odds in attempting to control them for their respective ends. As the quote above from the 1971 *New York Times* story about Buenaventura indicates, other countries have also seen the value, strategic and economic, of investing in development of the region for many decades, as the US began to provide development aid to the region in the 1960s under President John F. Kennedy's Alliance for Progress (Browne 1971).

While international donors and NGOs provided funding for the Pacific and its people prior to the 1990s, and the Colombian state began consolidating grand state plans for the development of the region in the early 1980s (see justification for PLADEICOP in the second quote above), it was the passage of Law 70 in 1993 that opened the Pacific for business among the newly forming sustainable development set. The World Bank, trying to show, with the encouragement of in-house anthropologists, it could do more than support large infrastructure projects, led the way via *Plan Pacífico*. This program included some traditional infrastructure development plans, but much of the focus was on helping Black communities take advantage of the new law and acquire land titles.[14]

Bilateral development aid organizations like SwissAid also showed up to advance the promise of Law 70. Beyond helping these peoples secure title to their land through the rather bureaucratic and technically demanding process established — challenges that were further complicated by the difficulty of drawing boundaries around something that had never known boundaries in the past — these development organizations attempted to support these communities in meeting the sustainable development objectives laid out within Law 70. After all, Law 70 offered land to these communities, but only under the expectation that the communities would serve as conservation stewards of these lands even as they pursued their own "autonomous" development efforts. Law 70's text suggested it would enable communities to pursue "autonomous" development.[15] Yet the state entity that granted titles to the communities,

[14] As Paschel notes, anthropologist Sheldon "Sandy" Daics had an important role in orienting the World Bank toward investing in land rights for Indigenous and Afrodescendant-Colombian communities throughout Latin America. (Paschel 2018, 84)

[15] The use of the term "development" here suggests the hegemony of the development discourse, which I as an author from the West have as much challenge breaking free of as did the Black leaders forced to use this language within Colombia's Law 70 in order to make the Law acceptable and understandable by the Colombia state (see Box

INCORA, required that communities receiving titles immediately develop a "management plan" for their territories that were legible to the state. This contradiction of extending autonomy only to the extent that actions could be seen and understood by the state was one indication of the pervasiveness of developmentalist, planning-oriented thinking underlying Law 70, and the fact that the new recipients of these land titles would have to actively resist to avoid attempts to shape them as sustainable development subjects

Another large aid project, Biopacífico (Project for the Biodiversity Conservation in the Chocó Bioregion), ran from March of 1993, just as the final wording of Law 70 was being negotiated, through 1997, when the first collective titles for Black communities in the region were given out. Funded by the Global Environmental Fund (GEF), the United Nations Development Program, and SwissAid, the program sought to "support in the Chocó Bioregion efforts that could help consolidate a new development strategy, based on the application of scientific knowledge, and the identification of a form agreed with the local communities, of options of managing biodiversity in a way of guaranteeing its protection and sustainable use"(Casteñeda 1994, 152) The outputs of this effort, which brought in both experienced and young researchers alike from around the country, were supposed to help inform a second phase, funded by the Colombian government, in which a new biodiversity conservation strategy, centered on sustainable use, would be elaborated for the region (Casteñeda 1994).

The Colombian government's interest in showcasing this new form of development, *sustainable* development, in the region, emerged from a growing international interest in taking nature and culture into account in development efforts, as evidenced by the 1992 Río Earth Summit, and a national interest in aligning with these international winds.[16] One of the key results of the Río Summit was the Convention on Biological Diversity, signed by Colombia in Río and ratified two years later. Colombia was quickly gaining more recognition for being a biodiversity powerhouse on the world stage, and the Pacific, part of the "Chocó Biogeographic Region," was its new shining star in this regard. In particular, the work of renowned US botanist Alwyn Gentry in the region in the 1980s had shown the region to have particularly high levels of endemism, rocketing it into the ranks of biodiversity hotspots worldwide (Gentry 1986; Myers 1988).

The presence of these aid organizations created little space for autonomous consideration of what autonomous development might mean, and what precisely would be required to achieve it. Development quickly became synonymous with "projects" brought by these organizations, and many Community Councils began to focus more and more attention on achieving continuing project support. Indeed, as Restrepo notes, for many of the Community Councils formed in the mid-1990s to fight for title to their lands, their identities have been so interwoven with the presence of these development projects and way of thinking that it has become impossible to pull the two apart (Restrepo 2004). This is partly because of the performances of ethnic identity required to receive these titles and to receive development funding investments, but also because of the form of thinking and social interactions that these projects generate among those "being

2). By autonomous development, however, I refer to the ability of these communities to design their own futures. Even the Community Council figure asked to lead this process of formulating a vision for autonomous development is a state construction, however.

[16] By the early 1990s, Colombia had gained quite a poor reputation internationally, given the extreme violence and chaos of the preceding decade. Part of its rather strong stances on these issues of international interest, then, must be understood in the context of its particular desperation at this moment for the Colombian state to maintain legitimacy internationally — and in the process, gain support for rebuilding legitimacy domestically.

developed": "The design and implementation of a project or a programme is an exercise of planning, which…constitutes one of the mechanisms through which the discourse of 'experts' colonize the life-world (a la Habermas) to produce 'the social'" (Escobar 1992; Restrepo 2004).

The functioning of the Community Council, and the actions of its members, have been shaped by the need to perform a particular Black identity for state entities and international donors in order to receive their support the donors try to develop projects that they believe conform, in some manner, to this ethnicity. Through their constant presence, these "development practitioners" seed the idea of "progress through planning" within these communities. This process was at first foreign to most in these communities, but soon became familiar, as project after project required new planning processes — many of which ended with the production of a document that few knew about or intended to follow. Development actors supposed that these documents, though indecipherable by many community members, might ensure the "sustainable use" of the territories. To most in the community, according to one community leader, the main benefits of these efforts were the production of a few jobs during the planning and study phases, and they came to expect the failure of projects to create something that would actually serve them in a more lasting manner.

This developmentalist discourse has been tremendously successful, as ubiquitous and hegemonic as it is neocolonial in its prescriptions of how people should think and act, and its imposition of a way of understanding and ordering the world on others (Escobar 2012; Sachs 1992). So powerful and compelling is this discourse that it mimics a religion, making it hard for its devotees to see the world in any other way, and leading to the use of all evidence that suggest development is not working as its planners imagined to be set aside or perverted to instead justify the continuation of the mission. Such complicating evidence, like development discourse, is ubiquitous. "Development" rarely works, after all, in any way close to what "plans" would suggested, as there are many "unintended" consequences that accompany these efforts — though to suggest a lack of intention is perhaps too generous, as many perverse outcomes have also become fairly predictable (c.f. Ferguson 1994; Li 2007; Mosse 2004; Tsing 2004; Scott 1999).

Despite recognizing these challenges, it has been hard for those involved in these projects to avoid such planning failures. A subset of the diverse group of actors involved with Biopacífico, for example, were concerned about the unintended outcomes from over-planning, and hesitant to translate their research into a set of plans, for the region. In the eyes of many, though, this was interpreted as a failure for the projects, given that *plans* were a critical metric by which development efforts are judged (El Tiempo, Casa Editorial 1995). We shall see that BIOREDD+, layered as it was onto development projects of the past, has also provoked unintended consequences.

Even as it has demanded sustainable use among Afrodescendant communities, though, the Colombian state has also maintained its grand development visions for the region's future that are less clearly sustainable, including building new roads (Monsalve and Castrillón Zapata 2008), ports (Volckhausen 2019), and oil pipelines (Bernal 2016), and supporting monoculture plantations (J Grajales 2013) and large-scale mining (Cagan 2014). Many parts of these plans over the last thirty years have been at odds with the wishes of leaders of the Black social movement that pushed for Law 70, including those from the PCN. The requirement for projects to achieve "Free, Prior, Informed Consent," from the Community Councils in the titled territories has served as an effective tool for stopping or altering these projects. As a result, many in the government, and those who stand to benefit from such plans, accuse Blacks of being "obstructionist." They suggest that these leaders, and the collective titles and rights granted the

communities through Law 70, explain the Pacific's "backwardness." The leaders who organize communities to prevent these projects are blamed by these companies and those in government for not allowing the Pacific to contribute to the country's economic growth or their own development (The Economist 2019).

BIOREDD+ would enter into this frame of a long and very mixed history of both large infrastructure investments and sustainable development projects across the Pacific, accompanied by the skepticism of the PCN about REDD+'s ability to benefit local people. This landscape, however, was further shaken by the violence of the civil war and narcogang warfare that came to the region in the 1990s. The reactions of different communities to these armed groups and the various threats they brought to leaders and the land are also important to understanding the way the BIOREDD+ projects played out in different communities, and it is therefore to this violence we turn now.

11 The Storm

> When the first collective titles were given out in 1997, the supposed beneficiaries were no longer there to receive them personally, as they had had to leave their lands because of the acts of different armed groups (Wouters 2001, 259–60).
>
> Simply becoming involved in these local movements put leaders in precarious situations — one leader who was doing a census was killed, for example, by the United Self-Defense Forces of Colombia (Oslender 2008).

By 1997, there was excitement across the Pacific around Law 70 finally being implemented, despite the many uncertainties that remained about how the law would play out. Yet challenges to the success of the law were already emerging, including continuing disagreements at all levels about what "development" in the region should look like and who got to decide. Grassroots energy built up in the push for Law 70 had begun to fade somewhat in the exhaustion created by the bureaucratic processes to receive land titles. Yet it was, on the whole, a hopeful moment for those who had put so much effort into organizing their communities.

This hope would soon be seriously challenged by alarming new developments across the region. The first communities granted collective titles to their land by INCORA, the state entity charged with the process, were, in some cases, no longer there to receive them by the time the titles arrived. While the civil war between the Colombian government and various armed revolutionary groups — the FARC-EP being the biggest — had not affected the Pacific much throughout its first few decades of fighting, it came bursting in in the 1990s.

Many have argued that the timing was not a coincidence — in a country with a long history of violent actors defending the interests of capital, the dissatisfaction of many elites and corporations with the closure of this frontier of natural wealth was likely to have motivated some of this violence in this era, and certainly since. As Carlos Rosero, an intellectual leader of the Black movement from the beginning, has written, "The forced internal displacement — understood as the greatest aggression that the Afrodescendants have endured in the last 150 years — is not an isolated act, but a collection of systematic acts, open, deliberate, and as such, inscribed and useful not only for the dynamic of war, but also for the purposes of development" (Rosero 2002, 549).

The FARC-EP also needed new coca cultivation lands and trafficking routes to fund its cause, and new camps where it could continue to expand. The Pacific's peasants, told over and over by figures of the church, aid organizations, and politicians seeking votes that they had been abandoned by the state, offered, in the eyes of the FARC-EP, a ready supply of farmers, transporters, and fighters. The dense rainforests easily hid the camps and coca processing stations.

Paramilitaries, meanwhile, angered about the peace process between the FARC-EP and the government, led by President Pastrana starting in 1998, took on the task of gruesomely crushing this expansion — often also aiding capital interests to gain a foothold in the region in the process (Jacobo Grajales 2011; Ballvé 2013). Wherever the FARC made their camps, local civilians were targeted not only for recruitment by the guerrillas, but equally by the paramilitaries, leading to family members being pitted against each other. By the time Alvaro Uribe took office as Colombia's new president in 2002, the peace deal had failed spectacularly, and Uribe began an effort to fulfill his campaign promise to crush the FARC-EP militarily, with support from the US's Plan Colombia.

There was no place for Blacks in the Pacific to hide from these warring forces, all trying to use them and their lands, and little opportunity for newly-formed Community Councils to undertake the roles that Black leaders promoting Law 70 had envisioned they might. Instead, they found themselves negotiating boundaries between their people and these armed groups, or fleeing their territories under death threats for standing up to the groups. Whole villages attempted to escape the violence by moving to the city. Buenaventura, Cali, and Quibdo took on many, while many others traveled up into the Andes, to Medellin and Bogotá, or even abroad.

Coca cultivation, pushed at first by the FARC-EP and later the paramilitaries, reshaped many of the same rural communities that Law 70 was meant to benefit. The social tension, armed actors, and aerial fumigation it brought suggested it may not have been the "autonomous development" that many promoters of Law 70 had hoped would result: while relatively economically lucrative, the additional problems it brought included remaking local social relations. Outsiders moved in to the biggest growing areas to control the trade, attempting to dominate local institutions at the same time. Young people stopped attending school, recognizing that work pulling leaves off coca plants would be more lucrative than any job they could get after graduating from their rural high schools. Prostitution and drinking resulted, with the same few people often controlling and benefitting from all of these trades — even as they suggested they were offering those lower down the totem pole opportunities to "advance."

A similar set of practices and power dynamics accompanied the expansion of gold mining with heavy machinery across the region over the last thirty years. Like the coca trade, this mining was illegal, but the powerful people behind it, and the ability of owners to pay off others who were supposed to crack down on it, meant that its worst effects were felt by the poorest and least powerful. Coming into communities with the force of either "*plata o plomo*" (money or bullets), these mining "companies" have destroyed rivers, contaminated them with cyanide, mercury, and heavy sediment loads, and left behind pits of standing water where mosquitos breed and the diseases they carry spread rapidly. Locals have been allowed to mine with a pan in the pits left by the excavators, and while some made money in the process, many have also been injured or killed in these pits. The ecological destruction and violence associated with these mines have driven displacement from many of these rivers.

The port city of Buenaventura, situated about halfway up the coast, was perhaps the most visibly affected by these displacements. The city had long been the country's most active port,

bringing in most of the country's goods. Yet the wealth of the port had never reached most of those living around it, passing straight through to Bogotá. Most who arrived to live in stilt houses over the water — pushed off their lands by natural disasters, the expansion of mining or monocultures, or violence— had to work in the informal economy. Urban paramilitary gangs fought for control of the city, enlisting young vulnerable men in their cause. Waves of violence resulted, as did particularly egregious corruption across all sectors— it has become a rarity for a mayor of Buenaventura *not* to land in jail. These gangs control everything in the city, including the environmental authorities who are technically charged with cracking down on illegal logging and commercial sale of these logs, as well as the sale of the produce and fish that those living in the rural regions would like to bring to market. "If you try to sell an egg or coconut without paying them off, you are likely to be killed," an informant from one of my field sites told me at the end of 2017. The city also houses the headquarters to the leading advocate for the Black communities of the Pacific, the Process of Black Communities, or PCN. The PCN's need to shift to issues of more relevance to urban-dwellers is indicative of the way times have changed since it was fighting for land titles for rural Blacks in the early 1990s. While PCN maintains staunch support among many of the vanguard leaders of the Black movement, though, it has also had falling-outs with others, which has made it harder to hold together this collection of threatened communities.

Also disheartening to those pushing for Law 70 has been the determination of a few bad actors to use the groundbreaking law to their personal benefit. Instead of attempting to represent the voice and needs of Afrodescendant communities broadly, then, these individuals continued the long Colombian tradition of consolidating their personal power through clientelist practices. One power broker based in Buenaventura, for example, has notoriously built power by following the letter of the law, though not the spirit, to create many village-sized Community Councils that each have voting weight equal to the Community Councils with dozens of villages that span entire rivers. Through this sleight of hand, she has gotten herself and her allies appointed to powerful positions through which they can benefit financially, including through the "Free, Prior, Informed Consent" processes required for any project that affects a Black community. These practices have not only exacerbated any individual or organization who must go through this process, but have undermined the intended value of the process and led to the use of Afrodescendant communities in the region as bargaining chips.

This bad news for the Black communities and the biodiversity and forests they are supposed to be protecting, though, has not deterred *all* those who would like to see the region "developed" in particular ways. I heard stories from people in Los Cocos of World Bank officials scared off by encounters with the FARC-EP, never to return. Yet despite all the violence, the Swiss and United States in particular have continued to invest in the region over the last 25 years. Many of the US's "development" investments have been linked to its larger counter-narcotics strategy there — trying to win the hearts and minds, as well as the pockets, of would-be coca farmers. Working in this context clearly has its challenges, many of which were present in BIOREDD+. Almost the entire region, for instance, is a "no-go" zone for diplomats and USAID staff, and there are always security concerns for consultants working on the projects. This means that for many meetings associated with these projects, community members are expected to travel to the city rather than hosting. These security issues beg many questions about these development projects, though. How, for instance, can people be convinced to invest their precious resources in a new "alternative" agricultural product when they are likely to be unable to sell it, thanks to paramilitary control in the city? How can they be convinced to invest in their territory for the

long term when they see displacement of communities all around them and their own children have all migrated? These challenges have, as we shall see, manifested in BIOREDD+ as well as many other development and conservation efforts in the region. In 2016, a monumental peace deal was signed between the FARC-EP and President Santos' government.

Yet the failure of the government to fully implement the deal or fill the vacuum left behind by the FARC in rural regions across the country, exacerbated by the country's election of a new president who doubted the peace deal, has made the future stability of the Pacific and the lives of the Black communities living there as uncertain as ever. New mafias are fighting for control of rural regions and gang violence is once again on the rise in Buenaventura. Social leaders are being threatened and killed with impunity, and Afrodescendant leaders across the Pacific have been disproportionately targeted (¡Pacifista! 2019).

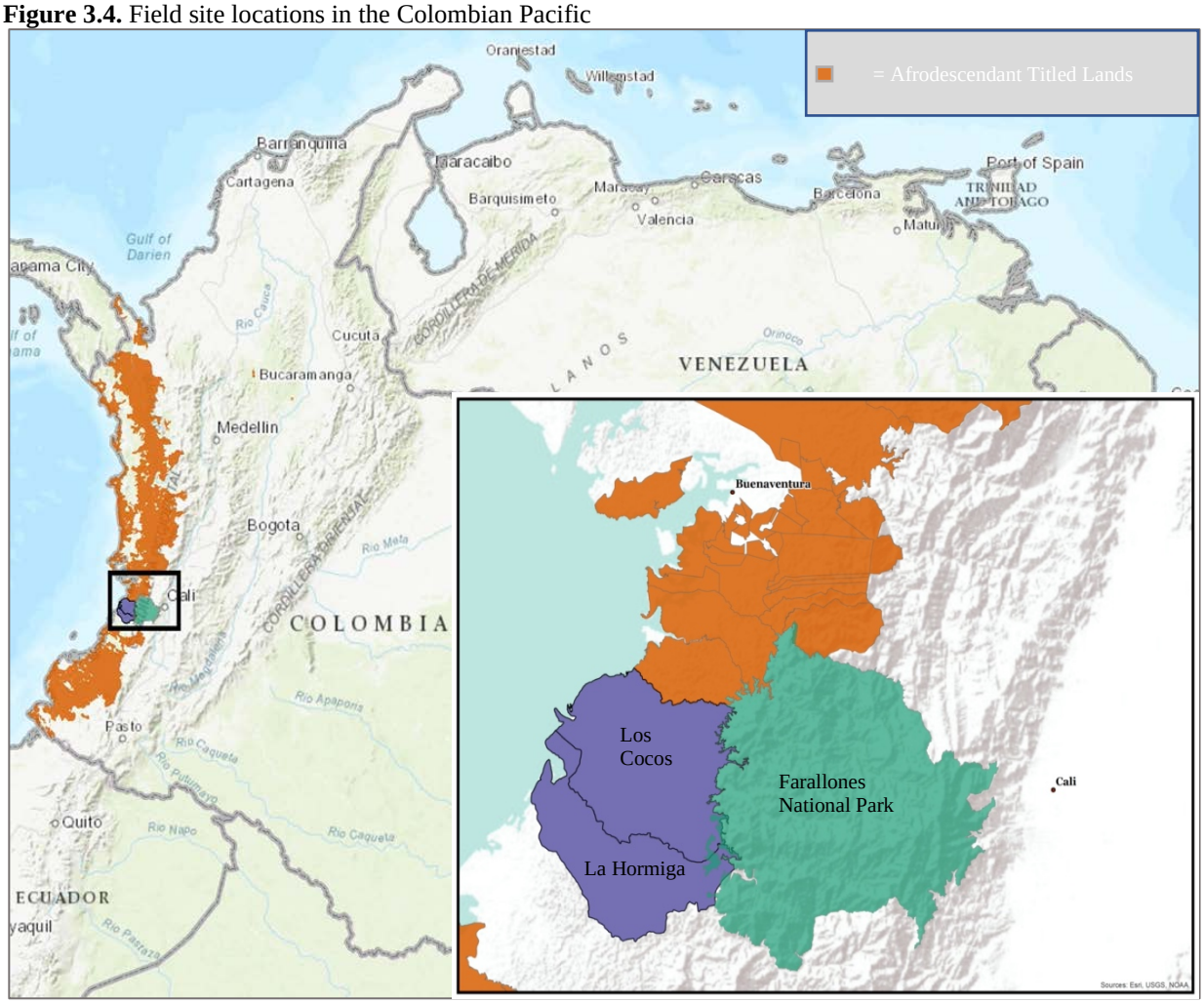
What precisely this violence means for the future of BIOREDD+ and other conservation efforts in the region is difficult to predict — though the direction is clearly alarming for these communities and the ambitions of Law 70.

It is important to note before moving on to describe the sites where this research occurred that these deleterious forces have had varied effects across the wide diversity of communities and ecosystems that make up the Pacific littoral. Some communities, for example, have been entirely overrun by coca cultivation. Others have been destroyed by mining. Some have just had small doses of each. Still others have had the combination of strong leadership and good fortune necessary to keep these forces at bay — though they are always threatening. The two communities I introduce in the next section have, as the rest of this work will elaborate, ended up in quite different places despite having fairly similar beginnings as the Black social movement got underway in the Pacific in the late 1980s.

12 Field Site Introduction: Los Cocos and La Hormiga

I conducted my field research in two Rivers to the south of Buenaventura. I use the term "River" because this is the local term for the collection of communities situated along the same river, within the same basin, and governed by the same Community Council. I introduce some key features of these Rivers here for context, while the following chapters build on this foundation to further elaborate the similarities and differences between these Rivers in their livelihoods and governance situations in particular, with an emphasis on how these have shaped the way BIOREDD+ landed in these spaces.

Figure 3.4. Field site locations in the Colombian Pacific



These Rivers are part of the larger “special district” of Buenaventura that makes up the whole Pacific coast of the Department of Valle de Cauca. In the local language that corresponds to tides and currents, one goes “down” to Buenaventura from these communities, however, as the currents flow northward, carrying those from the south into Buenaventura’s bay. The mouth of Los Cocos sits 50 KM as the crow flies south of the launching points for most boats from Buenaventura, while the entrance to La Hormiga is a further 8 kilometers south. Depending on the boat’s size and motor, it can take from one to three hours to reach Los Cocos, and another thirty to sixty minutes to reach La Hormiga from the Port. It is only within the last few decades that the option to get to the city on a boat with a motor has become available — for most of the

existence of these communities, trips to the city required a multi-day journey paddling through the winding, tidal paths of the mangroves, and over a few harrowing patches of open sea.

Once one reaches the rivers, some community members will have a further journey of between 27 (Los Cocos) and 36 kilometers (La Hormiga) — as the crow flies, and further as the river winds — up river to reach their villages situated closest to the mountains. The Rivers have between 12 and 15 villages, depending on what makes the cut to be considered a village. These are spread over three zones. In the lower zone, fishing (including shellfish collection, a critical livelihood for women) and woodcutting are the primary sources of income. In the middle zone where agricultural production and woodcutting are particularly important. The upper zone maintains some agriculture, but mining also becomes increasingly important there. In Los Cocos, as the river is more navigable for longer, wood is also taken out of the upper reaches of the River for commercial sale.

One of the greatest distinctions between their local economies today is the form of gold mining that takes place in each River. Both communities had their origins in the mining companies of slave-holder Pedro Augustín Valencia, each mine located in the community now at the highest village of the rivers today. Mining among locals, other than occasional panning along the riverbank, largely died out in Los Cocos. Yet mining has continuously been the primary livelihood for the village of La Hormiga closest to the mountains. There are various reasons for this difference, including that there was not, apparently, as much gold to be found in Los Cocos, and that there is a greater variety of livelihood opportunities around the mining areas of Los Cocos, which has access to decent agricultural lands and woodcutting. Until relatively recently, the mining techniques used in La Hormiga were unmechanized, and included women diving with rocks tied to their backs to pull up sediment for sifting. Over the last thirty years, pump motors used in pits with large teams, and small floating dredges operated by smaller teams have replaced these earlier practices.

In Los Cocos, mining was revived in 2012 by outsiders using excavators. These machines are not owned by local people, but they have become a common site on rivers of the Pacific over the last several decades. In the case of Los Cocos, two different companies have been mining the River — one that has struck a semblance of a deal with the community to do so, the other that is doing so without any official permission from the community. Almost all the profits leave the communities, but community members are allowed to bring their pans to some of the pits to sift through what the excavator has left behind. La Hormiga has refused to let these excavators enter their river.

The other primary difference in economies is that there is some coca, the base for cocaine, grown in Los Cocos. While the leaders of La Hormiga have successfully pushed back against the growing of coca internally, given the social strife it can generate, in Los Cocos, they have not been able to advance a coordinated front against the plant. Many in Los Cocos privately express frustration with those growing the plant, as they have become the victims of aerial spraying, funded by the United States, as a result of their neighbors' decisions. This spraying has damaged food crops and given children rashes. Given the illicit nature of coca — or, as it is called in these communities, "plants of illicit use" — it is difficult to know how widely it is grown or how much economic benefit it generates for individuals in the community. However, the levels are not nearly as community-altering as in some of the rivers further south, who must face groups fighting over control of their large coca crops.

In addition to their largely subsistence economies, these rivers maintain many of the traditions commonly associated with Afrodescendant culture in this region, including in the

songs, dances, crafts, and artisanal products they create. They were some of the fiercest advocates for land rights in the run-up to the National Constitutional Assembly in 1991, and for Law 70. In both rivers, people have told me stories of those early days of organizing, when they would paddle for days to reach meetings, and "more than one person lost their partner to the cause." Inevitably, those engaged at the beginning shared how individuals living in different parts of the River would contribute different parts of the food necessary for these organizing meetings. As one leader from Los Cocos described it in an interview, "Those from the sea would bring the fish, those from the upper zone would bring the "green" (agricultural products like taro, plantains, and corn), and those from the middle would bring the fuelwood."

In both communities, the foundation for organizing began with the church. In each primary village of the rivers, there was a Catholic Church. Though missionaries had spent long stretches of time in these villages in the past, by the late 1980s, the system relied primarily on the locals who were trained as catechists, meaning that they led the church services each weekend. The catechists in the villages of Los Cocos and La Hormiga were encouraged to form a men's committee and a women's committee from each village to engage in these larger political struggles, and eventually, with the help of the OCN, these were transformed into an ethno-territorial organization. This organization still exists in each River, and is known as the "mother" organization, which orients the community through challenging political moments. Unlike the Community Councils that would be created later as a requirement of the state, community members describe these ethno-territorial organizations as "living on regardless of Colombian law." These are meant to be the "un-cooptable" grassroots organization that will fight for the communities. In 1993, it was members of these ethno-territorial organizations, most of them formed within the previous few years, who descended upon Buenaventura and Bogotá to march to call for the passage of Law 70.

Both Los Cocos and La Hormiga were fully engaged in organizing at the beginning of the process, and both were members of the OCN. After Law 70 was passed, both went through the various steps necessary on to receive community titles, and managed to acquire these titles in the late 1990s from the state entity in charge of this process, INCORA. Part of this process of acquiring title was to form Community Councils, the governing unit of each of these titled territories, as required by the state. This governing institution was composed of various other bodies that were expected to work together to govern the territory. The *junta*, or "governing board," served as the elected representatives who were selected to oversee issues involving the full River and to serve as intermediaries between the government and other outside entities, and the rest of the river.

Though the rivers shared many characteristics, including many family members, the choices their governance bodies took in the face of outside pressures led them in somewhat different directions through the late 1990s and 2000s, ultimately making them quite different in their governance practices. Both have maintained the community Governing Board and Assembly, but these function quite differently in each community. The reasons for these differences will be discussed in Chapter 6.

My decision to focus my ethnographic work in these two communities, rather than any of the dozens of others along the Pacific coast, was based on four primary factors.

First, as my research sought to understand the effects of a REDD+ project on the communities participating, I wanted to work in a community not participating in REDD+ with which to make a comparison. In essence, Los Cocos, participating in REDD+, could serve as the "intervention" community, while La Hormiga could serve as the control. The two rivers shared

much in common in their history, populations, local practices, distance to the city, etc. While I have laid out above the ways in which they diverged — which means I cannot, in analyzing the effects of BIOREDD+, simply take these two as equivalent blank slates for comparison — they are as similar as two real communities can get for the purposes of attempting to compare the influence of an intervention.

Second, the deliberate decision of La Hormiga to *not* accept BIOREDD+ while Los Cocos decided to proceed with the project, left space to explore the distinctions in politics, governance, and conservation visions that each community held, and to consider how these, too, have interacted with development and conservation efforts two shape their trajectories.

Third, these two rivers were, over the course of my most intensive fieldwork period, 2015-2017, relatively secure, with Community Councils who had a good understanding of the security situation. This was an important factor in my considerations, not only for my own safety and that of my field assistant, but also because the presence of an outsider, and particularly someone from the United States can put informants in danger. By the time I came in, the FARC-EP had left the communities two years earlier, the fighting between paramilitary-affiliated gangs in the port city of Buenaventura had calmed, and a peace process between the government and the FARC-EP was underway in Havana. The presence of some illegal activity by outsiders in Los Cocos, and the ongoing activity of armed groups elsewhere in the region required significant discretion. I always relied on the wisdom of the leaders of the communities to guide me through what was never a certain security situation on the ground. Since 2017, the security situation in these communities has deteriorated, as a result of a reconfiguration of armed actors in the wake of the government's peace deal and the FARC's abandonment of the cocaine trade. Nonetheless, these two communities remain relatively better off in terms of security than most of the other 18 communities that were part of the BIOREDD+ project — which in turn are generally better off than most of the communities that USAID decided not to work with on these projects, as the ability of USAID and its consultants to actually operate in these communities is, according to their staff, an important factor in their decisions about where two work. It is important to understand, then, that the experience of Los Cocos may resonate in some ways with other communities across the region, but that the differences in security situations is likely to shape how BIOREDD+ was carried out and can be executed in the long term.

Fourth, these two rivers were willing to host me, and provided me permission to conduct my research there. This involved a process of first, sharing my research proposal with the Governing Board of each community and integrating their feedback, and then presenting my plans to the broader Assembly of each River to then decide on whether I would be permitted to work there and what the conditions of the work would be. These included training local people to serve as enumerators for the surveys we would carry out, leading workshops on climate change for people of different ages in the communities.

Why did USAID hope to work in these two specific communities? As the director of the program for USAID described the criteria they had for working with communities, they were concerned primarily about

1) Whether communities had received community titles to their lands;
2) The size of the forest in the community;
3) The security situation in and around the community;
4) The community's enthusiasm and responsiveness when they needed things to be done; and
5) The community's interest in working with USAID.

The first criterion for the communities to have received title to their lands, was key for USAID on a number of fronts. This is a concern for those evaluating REDD+ projects, as risks to the project are considered to be much higher in a context where the participating communities do not have land titles. In addition, as USAID planned to make the communities the "proponents" ("owners") of the projects, they needed to have an official legal entity with which to work. The Community Councils served this purpose.

When beginning the project, the Environment Director for USAID aspired for the program to cover one million hectares. He wanted the communities they worked with to own a large forest area in order to make the administration of the project highly efficient from a carbon credit perspective, producing as many credits per project as possible. Both Los Cocos and La Hormiga met this criterion, with the greatest forest area per Community Council of all the projects considered. In some of their other projects, USAID combined multiple Community Councils under a single project to achieve a similar end, as they had to develop a series of reports for each project, not to mention the 500-plus page validation document that these reports would feed into.

The security situation was obviously also of concern, both for their ability to execute the project and for the project's likely effectiveness over the long term. The enthusiasm of the community for the project and for working with USAID was also important. Many of the communities included in BIOREDD+, like Los Cocos, had worked with USAID in the past, and BIOREDD+ served as a continuation of their past relations. La Hormiga had not worked with USAID in the past, but opted to at least begin a conversation with them about doing so. Though La Hormiga ultimately decided not to participate in BIOREDD+, it did manage to gain a number of valuable additions to the community through its early negotiations with USAID over the project, including a diesel-powered *trapiche* (sugar mill) for grinding sugar cane into juice, and a series of machines for a woodworking studio.

More generally, both these rivers made good "REDD+" communities because they had been well-prepared through their time organizing for land rights for justifying their historical, and essential, sustainable stewardship of the land as Afrodescendant communities. Through this organizing process, these communities' leaders had developed the discursive tactics necessary to weave a compelling narrative for potential project investors and buyers of carbon credits that this was a project supporting a worthy - and trustworthy — effort. They could tell the story of how their land is being threatened by outside forces, and how they need the support of BIOREDD+ to reduce deforestation there. They were also communities where deforestation rates had been, and would likely stay, relatively low compared to many other communities of the Pacific with which they would be compared. This meant that both rivers were well-positioned to generate a high number of carbon credits, which would be important for the communities to cover the costs of running the program in the future after USAID left.

For these communities, the opportunity to participate in BIOREDD+ has been in some sense a strategy to secure resources. Like projects that have come before, however, its meaning and consequences have stretched beyond this narrow aim. As Restrepo puts it, "The projects have always been contrived as more than a privileged strategy for obtaining financial resources. They have engendered a daily exercise of self-definition and enactment, visible to others, of what Black communities are or are not, what their 'problems' are, and how, when and who must solve them" (Restrepo 2004, p. 708).

The chapters ahead will examine this dialectic between communities and projects in the Pacific, considering how community governance has shifted over time as Los Cocos and La

Hormiga in particular have interacted with BIOREDD+ and the conservation and development projects that came before. In these projects, these communities and their individual residents continue building on the sedimented practices of negotiation, adoption, and adaptation to external ideas and forces. The material outcomes of the individual decisions made and discourses employed in these dances can vary widely, as we shall see, altering the collective power of these communities and setting trajectories that become harder to adjust as these sediments accrete.

Chapter 4. "A Community-Led Project That No Community Could Ever Manage": How REDD+ Landed in the Colombian Pacific

1 Introduction

In 2010, Daniel Lopez developed an ambitious idea. Lopez, at the time, was the Environment Officer within the United States Agency for International Development's (USAID) mission in Colombia. In this role since 2008, he had been leading a number of funding programs, including "MIDAS" — More Investment For Alternative Sustainable Development." This $180 million program, which lasted from 2006 through 2010, had, like most rural development investments in Colombia sponsored by the US government, multiple goals. Among them, it sought first and foremost to reduce coca production, an effort to support the Government of Colombia's Plan Colombia, "and its shift from military interventions to alternative development (AD) for coca reduction" (ARD 2011). It hoped to "crowd out" coca primarily by offering participants "stable profitable, and licit rural livelihoods" (ARD 2011). Finally, the effort emphasized the sustainability of these alternative livelihoods, though the term "sustainable" was liberally construed. Among the income-generating activities that the project supported were commercial forestry, palm oil, cacao, cattle ranching, rubber tapping, and coconut production. The program worked in 21 Departments and included a dozen projects in the Pacific Region.

The commercial forestry projects that MIDAS had promoted in the Pacific had struggled to meet their goals of sustainability, falling apart even before the project period ended. An indigenous leader whose community had been trying to develop a commercial forestry enterprise through the project in the northern Pacific explained to me, "It just didn't match our way of living. We would go to the forest to monitor our trees, but when we saw a *Guagua*[17], we would go and chase that instead." Los Cocos had participated in the project, but its efforts also fell apart at the execution stage — according to interviews with project participants, community members already had their set places to harvest wood and established relationships for its sale that a short-lived project could not easily disrupt. Lopez attributed the challenges of MIDAS overall to the market: "We learned that in Colombia, there is no market for sustainable wood — the cost is just way too high and there is too much cheap wood available. We couldn't compete."

Having built up these relationships with communities across the Pacific through MIDAS and feeling frustrated by the challenges to establishing functional markets for forest products in this region, Lopez began considering other ways these communities could be paid to conserve their forests. The notion of REDD+ piqued his interest when he first heard about it. He began trying to find people who could offer more information about how to make this program work. Project REDD+ was still relatively young, and few projects had been carried through to generate carbon credits. National level REDD+ was also nascent, with discussions just beginning between Colombia about and the World Bank's FCPF and United Nations' UN-REDD.

There was one REDD+ project fairly far along in Colombia that could provide an example for Lopez. An Afrodescendant community on the Caribbean Sea, near the border with Panamá, had been working for a couple of years to independently develop a REDD+ project with the support of a Stanford anthropology Ph.D. candidate. In addition to learning from this student and the leaders of COCOMASUR, Lopez found a few other individuals in the country who had already started looking into developing their own REDD+ projects. By 2011, Lopez had decided

[17] A *guagua* or paca is a large herbivorous rodent and common source of meat in the region.

that REDD+ could be a viable option for many communities of the Pacific. He hoped it might, unlike short-lived bilateral aid development projects such as MIDAS, promote a long-term source of funding for the communities despite their poor access to most markets — critical as many of these communities were experiencing pressure from armed groups to not only increase coca production, but also to permit gold mining in their territories.

Lopez soon proposed the idea of developing a REDD+ program in the Pacific that would encompass one million hectares of forest and suggested it might happen in three years. In retrospect, he said he could not have appreciated all that this would require, given the novelty and increasing complexity of REDD+. Another key USAID employee in the project put it more bluntly: "If we had known what we were getting ourselves into, we probably wouldn't have done it." But in 2011, it seemed to them that this vision they had for BIOREDD+, if they could pull it off, could provide a large-scale REDD+ project example to Colombia and the world. And if they could manage it in a region with as many challenges to operating as the Pacific — given the diversity of actors and ecosystems, a complex and dynamic security situation, and remoteness that made navigating logistics a constant challenge — it could be all the more powerful as a model.

The basic theory of change of the projects was, as in integrated and conservation projects of the past, to provide "alternative development" options and "governance strengthening" to the communities to help them to reduce their dependence on an ecologically harmful activity — in this case, primarily cutting wood or converting lands to mines or coca. Even if these activities failed to bring in much income, though, like so many development projects before them, the shift that people would make into these activities in the short term would help reduce pressure on the forest and enable the community to receive carbon credits. The opportunity to earn these credits and the funding from the voluntary carbon market that would come with their sale, could provide additional motivation to the project participants. Each project area, however, had distinct circumstances — some had more challenges with outsiders causing deforestation, for example. Some projects also included multiple communities facing fairly different deforestation contexts. In Los Cocos, the primary issues that the project sought to counter were from forest degradation by local people harvesting wood for commercial sale, as well as the entry of outsiders to exploit Los Cocos' forests and mangroves to the same end. As the project directors would come to see, managing all this complexity would be more costly than they had originally imagined.

In this chapter, I explain the core elements of the BIOREDD+ effort that Lopez developed with his team and contractors. I describe the initial challenges the program faced to understanding and communicating the nuances of a changing REDD+ universe, as well as the conflicts in philosophies among team members about how to carry out the work. Technical issues far removed from the experiences of community members required much more time and financial resources than the team had originally planned for, leading to a shortfall in both funding and attention for activities that might have actually reduced deforestation. I explain how the core theory of change faltered — and while BIOREDD+ did have material effects in Los Cocos, it was largely powerless to shift livelihoods in Los Cocos, or to prevent more destructive activities from entering the river. Despite these and other challenges, Los Cocos is poised to receive significant funding from the sale of carbon credits – a point I explain here and elaborate in greater detail in Chapters 5 and 7.

This chapter relies primarily on my analysis of documents produced by and about the program and its individual projects, my interviews with members of USAID-Colombia, the principal contractor, and several other sub-contractors, and data collected from interviews,

household surveys, and participant observation in the Los Cocos and La Hormiga (see Introduction for more on these methodologies). This overview of BIOREDD+ plans, structures and practices sets up the three following chapters, which consider BIOREDD+'s implications for livelihoods, governance, and carbon.

2 The "Hiccup" Year

In 2011, USAID hired a large, for-profit Washington, DC-based aid contractor (henceforth referred to as "the principal contractor") to run the program. This contractor had significant experience working with USAID, but no experience executing a REDD+ project, let alone a 1-million hectare REDD+ program that aimed to incorporate over a dozen projects. Another consulting firm in Bogotá that had worked on one REDD+ project before was brought in to fill in that gap — and because, according to a few sources, the Bogota firm's owner was well-connected in the Colombian government.

The first year, the project worked with a few dozen Afrodescendant and Indigenous communities across the Pacific, introducing their leaders to the basic concept of REDD+ and setting up all the protocols to make the project function. There were tensions on the implementing team from the start, though, according to three members of the team I interviewed. Some wanted the meetings and work with the communities to be more participatory and organic, rather than forcing REDD+ or any particular alternative development projects on them. Others pushed to make REDD+ the center of the effort, and to streamline the range of alternative development options they had to manage. The end result of all this was that many communities after the first year were left both confused about what REDD+ was and upset that the principal contractor was telling them they had to do it when they were not even able to explain it well. Many of these communities had also heard stories about, or even experienced firsthand, the "Carbon Cowboys" who had come through the Colombian Pacific and Amazon promising riches to communities who sold the rights to their carbon. This did not make the pitch go down any smoother. The manifestation of these problems that convinced the program directors in 2012 there was a need to overhaul the effort was an issue all development consultants dread — they had underspent their budget. The communities were not moving fast enough to decide what alternative development projects they wanted, according to one source on the team. As the BIOREDD+ Final Report notes, "BIOREDD+ had a hard time finding its feet in the first year" (Chemonics International Inc. 2015). They fired a number of Colombian and American staff, restructured the team, and decided that REDD+ had to be the common focus of the effort: if a community decided it did not want to seek out carbon credits, they couldn't participate in BIOREDD+.

The Principal Contractor brought in a new director of the program in 2012 who developed much better relationships with the leaders of the participant communities, according to some of those leaders. According to him, this may have been attributable to an early decision to "jump off the REDD+ pedestal." The Bogotá-based NGO the team hired to be the primary liaison for the communities, Fondo Acción, also helped — they had team members with experience executing REDD+ projects and working in the Pacific. By the end of 2013, the program had been whittled down to nineteen communities, grouped into eight projects in four project "nodes" across the region. The decisions about which communities would remain in the program were determined using the criteria described in greater detail in Chapter 3, namely, the local land tenure and security situation, forest size, the community's responsiveness and demonstrated ability to do what the project would need to move forward, and its enthusiasm for the project and for working

with USAID. These nineteen communities signed “letters of intent” with the project at this point, committing themselves to continue working with the program team to advance the project in their community, and to not participate in other REDD+ projects.[18]

3 Leaving La Hormiga, Keeping Los Cocos

Despite the changes in the project personnel, some communities that had promising prospects for generating many carbon credits remained skeptical of REDD+. La Hormiga was among them. The community managed to get some important investments from USAID in the river during the first year of the project, including a sugar mill and a woodworking workshop for transforming wood into fine furniture. One of their young leaders, Julio, became part of the USAID team early on, as he had been working in La Hormiga to find ways to reduce deforestation rates for several years. He was a mathematician from a top public university, and a dynamic leader and speaker. USAID immediately saw the value he could add to the project in speaking with communities about REDD+. Nonetheless, this leader had a hard time selling REDD+ at home. The leaders of La Hormiga did not like the idea of signing up for something that they did not fully understand, and at this time, frankly, nobody fully understood REDD+ or what it was likely to bring.[19]

La Hormiga also generally tried to align itself with the politics of the Black Communities Process (PCN). International and national conservation efforts were generally viewed with suspicion in this context: “for whom,” one leader from La Hormiga always asked, “are we conserving?” These communities had enough experience with outsiders coming into their territories to steal the resources they had conserved that the notion of conserving their forests “for humanity, to prevent climate change” seemed suspicious. The idea that they might be conserving it in order to greenwash a company that was doing great ecological and social harm elsewhere, as they learned might be happening from the PCN leader studying REDD+, made them uncomfortable, too. They asserted over and over that REDD+, with its emphasis on preservation, worked in contradiction to their local notion of conserving “through use.” They were left with a bitter taste in their mouths about working with USAID and the Principal Contractor after their desire to develop a project across the whole region south of Buenaventura, in solidarity with other rivers, went unheeded in the first year of the project — a request that one contractor said was ultimately rejected because it didn’t “fit” the manual their team had developed for how the projects should function.“[20]

When I asked the leaders of La Hormiga on different occasions what they remembered of why they had declined to participate in BIOREDD+, they generally answered with a variety of these reasons. One key leader noted that the BIOREDD+ team had come across as too pushy and enamored of their own ideas as well — perhaps a reflection of the team’s determination to center REDD+, rather than the more immediate needs and interests of community members: “In these conversations we had with the REDD+ project, we started with some small livelihood projects, but the REDD+ delegates always insisted on imposing their ideas. That was what made us cut off that relationship, because we believe that we are the ones who know the reality of La Hormiga, and we are open to sharing with others so that they understand us, but if the outsider that comes

[18] The same land space cannot be registered under multiple REDD+ projects at a time, lest any credits from these projects be “double counted” in global carbon offset markets.

[19] Later, in 2015, the director of BIOREDD+ for the Principal Contractor would call out the REDD+ consulting companies at a meeting for making REDD+ “this thing that only three cats can understand”.

[20] Though leaders of La Hormiga implied that they had buy-in for this idea from other Community Council leaders in the region, I did not have the opportunity to confirm this with those leaders.

wants to impose his idea, we do not permit that. That is why we cut off our relationship with REDD+, why we didn't continue on." This same elder insisted, too, that they didn't see the decision as an unequivocal rejection of the idea forever, but rather an indication of its uncertainty at this early stage and their desire to see how it played out elsewhere.

One BIOREDD+ team participant from outside the community had a different take on the decision. She interpreted La Hormiga's withdrawal more as a sign of La Hormiga's commitment to the PCN and, in particular, the friendship between the Legal Representative of La Hormiga at the time and the member of the PCN who was urging caution against REDD+ around the country. Regardless of the role of this personal relationship in this decision, however, the uniform message among leaders around their concerns about REDD+ affecting their autonomous control of their territory suggested that they were also convinced by the messages of this PCN leader. Julio respected the decision of the rest of the Governing Board: "Even though I was more hopeful about REDD+ for our river, that is our process, and one must respect it," he told me.

Los Cocos, in contrast, decided to stay in BIOREDD+. This, too, might be attributed partially to personal relationships: the Legal Representative of Los Cocos at the time had built a particularly good relationship with the head of USAID. USAID had, for instance, purchased a house in Buenaventura where the Community Council could keep an administrative office. This was a small office with three desks where Governing Board leaders could operate from while in the city. Los Cocos also had a paid part-time administrative assistant who worked in the office, managing the books for the different projects and coordinating associated meetings and trips. The office also housed all official materials associated with the Community Council, including minutes from all meetings and paper trails from projects of the past.

Los Cocos had been working with USAID on the MIDAS project for several years before BIOREDD+ began. Nonetheless, BIOREDD+ had to clear other bars to be accepted by the full Community Assembly. Only a few young people in Los Cocos had a strong grasp of REDD+ and what the BIOREDD+ program sought to bring. For most community members, the effort seemed an extension of MIDAS, and another chance to get some new funding for alternative development projects. During the Assembly at which the community was being asked to consider signing the Letter of Intent with USAID to go forward with BIOREDD+, two members of the BIOREDD+ team who had been tasked with "socializing" the project — including the young leader from La Hormiga — explained once again what BIOREDD+ was and what they would be committing to by signing the letter of intent. The community's Legal Representative recalled that meeting in my interview with him: "There were some good things, there were some bad things, but there was a lot still unknown." In the minutes from the meeting, the Los Cocos Assembly opted to proceed cautiously: "The community decides to participate in the informational workshops before deciding if they will participate or not in REDD+."

4 Technical Headaches, Multiplying Costs

Part of the challenge to the projects from the start was that USAID and their Principal Contractor were learning as they went along, and REDD+ tools and requirements were being developed in real time. According to one team member, the team had thought originally that they could have people in the project communities undertake local forest monitoring, as had been used in the other Colombian REDD+ project in the Caribbean, COCOMASUR, to measure carbon. They tried this at first, but the results were not encouraging. As one team member put it, it became clear that it would "take too long" to properly train local people to do the measuring and monitoring themselves. Moreover, they would not be rewarded for these efforts in the carbon

marketplace: these community-based monitoring practices are considered to have greater uncertainty than other carbon measurement methods, and the credits that the projects can sell in the voluntary market are discounted accordingly. The team also originally thought that they would be able to reuse many of the technical materials developed for one project across the other projects, but this was not to be so: separate expensive measurements and studies were needed at all the project sites.

Some of these challenges can be attributed in part to the fact that these projects they were trying to create were unlike other REDD+ efforts around the world for two primary reasons. First, the communities were the project proponents. This was considered best practice from a distributive justice standpoint, and also allowed USAID to get around Colombia's formal requirements of Free, Prior, Informed Consent for carrying out a project on Afrodescendant or Indigenous land, since the communities were in fact the owners of the projects. The principal contractor suggested later that one of the aspects of the project from which others might learn from was their design of their own informed consent process with the communities (Chemonics International Inc. 2015). This legal ownership of the project was like the COCOMASUR model, but unlike most projects in the world. One REDD+ consultant hired to lead technical aspects of the project from the US admitted that this presented challenges for their company in communication and attempts to manage particular aspects of the project for validation and verification, as the communities had less background in REDD+. Second, many of the projects, including that in Los Cocos, were principally focused on reducing degradation, not deforestation — it was the selective harvest of timber that was the "problem" in these communities, not the kind of clearcutting that they had other models of deforestation to match. Though REDD+ stood for Reducing Emissions from Deforestation and Degradation, it turned out that there were not yet many accurate options for measuring degradation, particularly from satellite images. Ultimately, then, the project ended up relying on Lidar, which is more sensitive to degradation. Lidar, which is essentially radar but with light instead of sound waves, requires that a specially equipped plane fly over the forest at a low level to scan it with Lidar. Using Lidar to measure carbon also required a PhD engineer from NASA's Jet Propulsion Laboratory in Southern California to carry out this work across the Colombian Pacific region.

In addition to having the surprise of needing to measure forest carbon with Lidar, the project team learned that there wasn't a REDD+ project methodology ideally suited to the project's circumstance. These methodologies are key to the creation of these projects, and their ability to generate carbon credits. They are meant to each capture different processes of deforestation and degradation. As elaborated in Chapter 7, they determine how a baseline will be developed and what data will need to be collected to measure the forest and predict changes from the project and other activities in the project area.

The methodology that the BIOREDD+ team selected was one that was supposed to be compatible with degradation. It was this methodology that pushed the team to measure the forest degradation with Lidar, since it rewards "projects with more accurate monitoring and verification" (Terra Global Capital 2014). This methodology was also complex and expensive. It required a number of studies to be done by other consultants — a socioeconomic study and a study on the timber supply chain in each project community, among others — in addition to modeling of the effects of each part of the project on the forest in the future.

Early on, the team sought out a private sector company to provide additional funding for the effort. There are for-profit companies that invest in REDD+ projects with a goal of supporting "productive" activities and carbon credit creation in order to take a cut of both of these over the

life of the project. USAID, seeing that they were going to be challenged to reach their goal of achieving project verifications (the stage at which carbon credits are generated and can be sold) by the close of the project at the end of 2014, began seeking out one of these partners to carry the project forward after USAID funding dried up. With the US State Department providing a loan guarantee to Althelia, one of these private firms based in the UK, for investing in these projects, Lopez thought he could broker a deal with them (Gonzalez 2014). But after 18 months of talks, Lopez and the Principal Contractor project lead remained dissatisfied with the terms of the Althelia's offer and the discussions broke down. According to one member of the BIOREDD+ team, the offer didn't align closely enough with USAID's aid mission, opening the communities to too much risk. It was at that point, in late 2014, that the project decided to look for alternative pathways to get the projects through to verification after the official BIOREDD+ projects ended.

Box 4.1. BIOREDD+ Stated Objectives

1. PROJECT OBJECTIVES
The project objectives are threefold: (i) to mitigate climate change by reducing deforestation and forest degradation, and through natural recuperation of already degraded forest lands; (ii) contribute to biodiversity conservation including High Conservation Values, and, (iii) foster sustainable development of the local community. Following is a more detailed description of each objective.

2. CLIMATE OBJECTIVES
The project's climate objectives are to mitigate climate change through measures to alleviate the drivers of deforestation and forest degradation. The resultant decrease in illegal logging, the recovery of already degraded forests, and the reduction of forest conversion to other land uses is expected to decrease emissions and enhance forest carbon stocks over time.

3. COMMUNITY OBJECTIVES
The project's community objectives are to (i) strengthen local governance through improvements to land titling, land-use planning and implementation; (ii) support the development of sustainable economic and livelihoods alternatives through training and technical assistance in agriculture and fisheries, new crop varieties, harvesting equipment, processing plants, transportation and logistic infrastructure and value chain development; (iii) social investments in development planning, infrastructure, health care and education; (iv) enhancing local administrative, leadership capacity and environmental awareness through training activities which intentionally include women from the community; (v) contributing resource and salary associated funding for REDD+ project implementation; (vi) enhancing social capital through the creation or strengthening of institutions (corporations, associations, cooperatives).

4. BIODIVERSITY OBJECTIVES
To contribute to biodiversity conservation through long-term improvements to the extent and connectivity of intact natural forest cover and associated structural, compositional, functional and High Conservation Value attributes, as compared to baseline scenario conditions.

Source: (Moore 2015)

5 Validation

The first big hurdle for a project to generate carbon credits is being "validated." Validation essentially says that a project has been officially established — that it has, following a

methodology approved by the Verified Carbon Standard (VCS), developed a deforestation and degradation baseline for the project area, that the communities in the project area are aware of and approving of the project, and that there are activities planned or underway to reduce deforestation and degradation in the project area. USAID had decided that, in addition to receiving validation under the VCS, it wanted to seek a supplemental certification under what is known as the "Climate, Community, and Biodiversity Alliance," or CCBA. This secondary validation would, the project team hoped, allow them to earn higher prices on the carbon market, for having demonstrated the active benefits that the project provided to communities and biodiversity in the region. Of the many additional technical steps needed to achieve validation, one particularly important one is an estimate of the "Verified Emission Reductions" that the project is likely to create over its lifetime. In the case of the BIOREDD+ projects, this formal lifetime was 30 years. Once they had this number, USAID hoped, they could use it to attract reticent investors to the project.

The validation process for the BIOREDD+ projects began in early 2013 with an aim of getting the projects validated by the end of the project timeline in 2014. This involved a consulting firm based in the Bay Area of California creating massive project design documents (PDDs) for each of BIOREDD+'s eight projects, based on the methodology the principal contractor had selected by TerraGlobal Capital. These PDDs depended on a series of other on-ground studies, the lidar flight results and analyses, and satellite image analysis and modeling by the Bay Area consultants. Getting together this documentation required the BIOREDD+ team to manage many moving parts, and for at least a portion of the team to have a basic understanding of the science and accounting of this multitude of steps in the carbon credit creation process. Each PDD developed between 2013 and 2014 cost the project around $800,000, according to one team member's math. That meant a cost of around 6.4 million USD across the whole BIOREDD+ program, or about a quarter of project funds, were spent just on this technical piece. This sum didn't include any work with the communities or any of the actual efforts to reduce deforestation and degradation, nor did it include the costs of the Principal Contractor to oversee and coordinate the development of these PDDs in California.

Because this expensive document creation is required to allow projects to generate carbon credits, the team prioritized this part of the project. After the PDD is submitted to VCS, a thirdparty audits the project. The auditor for BIOREDD+ reviewed the PDDs and made two-day visits to the project sites between October and December of 2014 to assess if what was on paper reflected the reality on the ground. At this stage, the communities participating in BIOREDD+ only had to demonstrate that they had a commitment to and general knowledge of the project, and that there were activities underway or planned that would help them to achieve the goals of the project, namely, to reduce degradation, and in the communities where applicable, deforestation. The auditor came back to the BIOREDD+ team with a number of concerns after they had reviewed all the materials. Once the team was able to provide sufficient justification for their decisions, or, in a few cases, make minor changes to the PDD, the projects were validated under both the Verified Carbon Standard (VCS) and the Climate, Community, and Biodiversity Alliance (CCBA) standard in the spring of 2015.

6 Key Project Design Document Elements

Given the importance that technical details have in how these REDD+ projects play out, it is worth mentioning two pieces of the document and audit that have substantial bearing on the project's ability to produce carbon credits.

First, the analyses relied on a “reference region” to determine the baseline levels of deforestation and degradation against which future rates of deforestation in the project area would be compared. This reference region was comprised of other collectively-titled Afrodescendant communities in the Pacific. There is a strict set of rules within the methodology determining what can and cannot be included in the reference region. This is because it would be easy for a project to generate credits without doing anything if it were being compared with an area with notoriously higher deforestation and degradation. Thus, there is a requirement that the reference region be governed by the same system as the project area, and that the drivers of deforestation and degradation in this region be similar to those in the project area. This region was changed several times over the course of the validation period, including in response to some limited concerns from the auditor about the version submitted for the validation.

Second, the project had to determine a “leakage area” to monitor. This area is, in theory, the most likely area into which degrading and deforesting activities would shift from the project area as a result of the project. Any additional deforestation and degradation in the leakage area that appears is supposed to be subtracted from the credits the project generates. Where this actually is likely to happen is very hard for outsiders to predict, of course, as this is shaped by both social relations and local technologies and practices. Originally, in Los Cocos, the leakage area had been designated to run along the riverbanks of the project. But members of the community who understood the process, a few months before the project was to be validated, argued that this would be problematic for them, as there was mining taking place in this area. As a result, the leakage area was moved to the outside of the project area, and the mining areas were taken out of the project altogether. This was a somewhat surprising outcome given that, according to interviews, the one activity that substituted for cutting wood was mining. It could easily have been argued, then, that as a result of the project, and in hopes of being paid via carbon credits in the future, woodcutters shifted over to mining to provide their income in the interim.

These were just two of hundreds of other small and more substantial decisions taken as part of the development of the PDDs that affect the project’s creation of carbon credits. Even under a particularly detailed and involved methodology, in other words, there is significant discretion allowed consultants developing the PDDs. Understanding many of these, however, requires years of study, and even the most formally educated members of Los Cocos were in the dark about these calculations — not only for their complexity, but because the subcontractor from the Bay Area had not revealed all of the steps in their process even to the community that was in theory the project proponent.

7 In the Rivers

What information and activities were making it to the communities, then, with most of the focus of the project team on subcontracts and technical details in order to get these projects validated? How were the people of Los Cocos experiencing BIOREDD+? After the first “flop” year, there were three lines of work focused on the participant communities. One was an effort to explain to the communities what REDD+ was, and what they were committing themselves to by signing on — an effort at ensuring “Free, Prior, Informed Consent.” The second was a mix of alternative development projects intended to give economic opportunities to community members that would reduce their dependence on cutting wood. Finally, the program had a body of work dedicated to “strengthening governance” within the community, which both sought to encourage woodcutters to pursue alternative livelihoods and sought to build interest among others in the community to take a harder stance against woodcutting.

The Bogotá-based NGO Fondo Acción coordinated all of this work, which ultimately ended up being a much smaller portion of the overall project budget than originally forecast, thanks to the high costs of the development of the Project Design Documents and a "lost" year of work up front. The bar for these streams of work was relatively low for passing validation, so it also didn't make sense for Chemonics to invest much in these pieces with their focus on eventually producing carbon credits. It may seem odd that, when illegal logging is presented as the challenge that a REDD+ project is trying to control, ensuring that local people are aware of this and that there are actual practices in place that are reducing this logging are not as central to a project's validation as questions like whether the consultant developing the PDDs from across the world used the right equation to estimate the impacts of a given activity on logging. In this case, however, and as we shall see in subsequent chapters, assessing the correct use of the equation is much easier for an auditor than actually spending additional time on the ground to understand whether people really know what's going on and whether the activities proposed for reducing degradation are actually likely to have this effect. The latter assessments may also be deemed too "subjective" and provoke pushback from the project teams. Without being able to provide justifying evidence to the contrary about what is likely to happen in the future with these projects, then, auditors are ill-positioned to "fail" a project simply because people don't seem fully aware of what the project is doing, or because the alternative development projects do not appear to be providing the economic alternatives they are supposed to. Instead, the auditor has to assume that these projects might actually do what they are proposed to do.

As we shall see, however, spending more time with people on the ground yields more doubts about the viability of halting deforestation through the mechanisms described in the PDD. In what follows, I describe the way these components of the project — training community members and leaders about REDD+, developing alternative livelihoods, and "strengthening governance" — were executed. In subsequent chapters, I will consider the effects of these efforts in combination with other aspects of the project overall on the livelihoods and governance of those in Los Cocos, as well as on REDD+'s aim to reduce carbon emissions.

8 Understanding REDD+

Among the challenges of the projects that USAID and its Principal Contractor team were managing, explaining to the participant communities what, precisely, REDD+ consisted of, and what they were committing themselves to, may have been the greatest. An important reason for this was the dynamism of the voluntary market and its requirements over the life of BIOREDD+. Yet another came from the way BIOREDD+ ended up doing much of the technical work: with all the measuring and monitoring of the forest happening by airplane and satellite, there was much less activity for the community members on the ground to associate with the forest protection part of this project.

This challenge with communities understanding the nuances of REDD+ has been found in REDD+ projects around the world (Milne et al. 2016). The explanation of REDD+ in these communities typically starts with climate change and photosynthesis. The politics of why there were businesses and countries willing to pay for carbon to be sequestered in their forests followed. Then the lecture would move into what they were being asked to do to receive these payments and how this would be measured and monitored, followed by an explanation of the promises and uncertainties of the carbon market. Just explaining climate change and the role that forests play in mitigating climate change could take up a whole morning. Yet the project teams also hoped to do more — they hoped to explain REDD+ on the community's terms as well, to

make it something they could connect with. In the process, they aimed to quell rumors, not too far from reality, that REDD+ was about "gringos stealing our oxygen because they have ruined their own air."[21] As a director of the Principal Contractor described the larger challenge in an interview:

> The thing which was really hard as well was basically, how do you bridge the gap between the really laudable and environmentally courageous perspective of REDD+ that largely plays out in the international COPs, in all those environmental outfits you have around Berkeley in California, in environmental investment funds in New York, and Paris and London…how do you bridge the gap between that world of REDD+ and the world of REDD+ you spent many months living in. On the one hand that's a philosophical issue, but at a practical level, how do you bridge those two worlds without them colliding, or one being inappropriate for the other, or one subsuming the other. That in itself was a huge challenge. And so we changed our approach numerous times in trying to do that.

A few communities, like Los Cocos, had formally educated and engaged young people who were curious about the details of the carbon market and what kind of commitments they were being asked to make and benefits they were likely to receive. In general, though, even among the select group of about ten percent of community members who showed up regularly to meetings, few could describe REDD+ even after several information sessions. The notes from a meeting held in Los Cocos in June 2014, which included primarily engaged community members and leaders and followed on several other meetings describing REDD+, stated "In general the workshop attendees don't understand the concepts of the greenhouse effect and climate change. The way REDD+ functions is not understood, and its basic approach is doubted. A small percentage of attendees are capable of understanding these themes" { | Fondo Acción, 2014 8FYTNBMU }. These findings reappeared in our household surveys, where we found that only a third of households in the villages where several meetings about REDD+ had been held knew that REDD+ had something to do with forests. The percentage of people who would know even this basic information across the whole river, which included several more remote villages with villagers unlikely to attend such meetings, was probably much lower.

Yet this also reflected another challenge of informing the community with which the project team struggled: how to explain the concept of REDD+ and its possibilities without raising expectations too much. It is common for integrated development and conservation projects to promise a lot in order to get people to commit and change their behavior, though they commonly underdeliver (Massarella et al. 2018). Yet the uncertainties were even greater with the voluntary carbon market for REDD+ credits, whose existence and pricing were unstable from the start of the BIOREDD+ program through the finish. The team felt uncomfortable encouraging people from the community to stop carrying out livelihoods under the expectation that funding from carbon credit sales would arrive — not only because when that money would appear and how much it would be was in question, but also because whether it would come at all was also in doubt. What if the project didn't manage to generate any credits? What if it did generate credits, but the price was too low to cover even the opportunity costs to individuals of not cutting, let alone all the transaction costs of managing the program? As a result, then, the project team

[21] A similar story has sprung up around the world where REDD+ projects have come. Many people asked to participate have assumed that they are to somehow bag up the air around their trees to ship off. The notion that people would be willing to pay them for essentially "doing nothing" seems incredible (Knight 2015).

settled on being very clear about the risks, and not emphasizing the potential payouts as reason for participating. In other words, the project on the ground, and in terms of the motivations that the project team emphasized, looked more like a typical integrated conservation and development project than a payment for ecosystem services project. This outcome was found in many other REDD+ projects around the world, too, where financial payoff was not a key part of the motivation for doing the project given the uncertainties about generating and selling carbon credits (Sunderlin et al. 2014). This poses interesting questions about what aspects of these projects, then, make them neoliberal in practice, and, indeed whether this concept of market-based neoliberal conservation, at least in the context of REDD+, is likely to remain more an ideal than a realistic possibility.

Julio, who had been tasked with explaining REDD+ to the communities, expressed the challenge in these terms: "Yes, you must technify the communities, but you also have to simplify the technical." While he and his colleagues worked on this simplification, there were basic pieces of REDD+ that were both extremely complicated and foreign to community members, and yet necessary to explain clearly if they were really to become informed before committing their communities to participate. After hosting a series of meetings in each project region to explain REDD+, the principal contractor opted to streamline its deeper education efforts toward the few individuals in each community that seemed genuinely interested and capable of understanding some of the nuances of REDD+. They brought these individuals to workshops in the cities and asked them to take the information back to their communities. The project team found that these leaders who understood REDD+ made the best messengers — they thought carefully about how to frame it in a way for community members that neither reified it, nor made it impenetrable for those who had little knowledge of either climate change or ecosystem services. These leaders, including those from COCOMASUR, were able to frame it as a tool for helping the communities to develop in a way that maintained their natural resource base intact, thus aligning with their goals of alternative development.

The California subcontractor used much of the material from the PDDs to put together an "action plan" that would be presented to the communities for their approval in mid-2014, shortly after they had begun the formal process to request validation. It was this "action plan" that served as the lynchpin of what the Principal Contractor described as their "own" form of Free, Prior, Informed Consent (FPIC). Though Colombia has strong FPIC requirements for those wishing to work on titled indigenous or Afrodescendant lands, these requirements did not apply to BIOREDD+ because the projects were legally owned by the communities. Regardless of national law, though, REDD+ validation requires that communities involved in the process understand what they were getting themselves into. Thus, it was important for USAID and the Principal Contractor to have clear documentation of all of their efforts to teach the project communities about REDD+, and also to show that the communities accepted the project without coercion. It was also important for some members of the community, and particularly the leaders who were entrusted to guide the community in making a decision about REDD+, to have a strong understanding of the project and REDD+ more generally.

The audit team ultimately green lighted the project on the issue of whether "the community" had been consulted and had some sense of ownership over the project. They relied on conversations with individuals who were well-versed in REDD+ over their two-day visit to the community, and by looking at documentation from project meetings with the communities, including the attendance sheets from each meeting:

> The audit team confirmed that the BioREDD+ program did a reasonable job of stakeholder and community inclusion through i) interviews with community members who had a sophisticated understanding of not just their own project, but also REDD in general and who confirmed that they played a major role in project design, ii) observation of the fact that all decisions are approved by the traditional decision making structures of the Council, iii) a well-documented paper trail of consultation including original and copied documentation from consultation meetings going back multiple years that were shared with the audit team (Moore 2015, 35).

9 Alternative Livelihoods

An effort was made after the chaos of the project's first year to streamline the "livelihood" alternative choices available to the communities. While Chapter 5 elaborates the challenges of the program's alternative livelihoods in more detail, I outline here the projects proposed after this streamlining. Cacao, acaí, annatto, and peach palm — all tree crops — were emphasized, with a few communities, including Los Cocos, also being funded to create sustainable fishing cooperatives to sell directly to high-end restaurants in Bogotá. In another community that had been working to develop ecotourism, the program supported efforts to strengthen that business.

Ultimately, though, many of these projects across the Colombian Pacific region ended up largely continuing support for efforts that were already underway — those started by USAID or others before BIOREDD+ arrived — or developing project plans and starting in on the bare minimum of execution of these before the project period ended. In the case of Los Cocos, the majority of BIOREDD+'s alternative development supports went toward two activities: developing a sustainable fishing cooperative, and continuing support for cacao production that had begun under a previous UNODC (United Nations Office on Drugs and Crime) project.

The fishing cooperative ended up with more investment than any other project in the BIOREDD+ portfolio. USAID invested in fishing boats, boat motors, canoes for shellfish collectors, and fishing gear for the fishers. A new cold storage facility was built, with solar panels to power a top-of-the-line ice machine. A refrigerated truck was bought to take the fish from Buenaventura to high-end restaurants in Cali and Bogotá. Trainings aimed to teach fishers about which practices were sustainable, and how to filet their fish properly for sale to these niche markets. The project paid the salaries of the local administrators of the cooperative. They trained them in administration. They brought in biologists to conduct participatory studies of the state of different marine and mangrove resources and develop guidelines for catch limits. They attempted to organize "closed seasons" for certain species.

The format of asking community members to work in cooperatives carried over into cacao production in the river. Los Cocos had been the beneficiary of an agricultural project to substitute cacao for coca from the United Nations shortly before BIOREDD+ had come along, and BIOREDD+ took over the project. Again, there was an effort to spread benefits evenly among the different zones of the river, so people had an opportunity to participate from the lower, middle, and upper zones in the project. Each beneficiary was given a few hundred small cacao starts and told how to plant and care for them. BIOREDD+ paid for the beneficiaries to go to a cacao processing factory and learn how to prepare their crop for sale. Yet a few hundred cacao trees are insufficient for an individual to make a living. In order to get someone to come to the community to buy cacao, all of the people who had planted would need to coordinate their production and sale, though this coordination was left to the community members.

BIOREDD+ also made investments in a pilot project in Los Cocos harvesting *acaí* (locally known as *naidi*), a native palm that grew in the brackish flooding forests of the lower river. This

palm produced a fruit that has become very popular around the world over the last decade as a "superfood," loaded with antioxidants. BIOREDD+ also sponsored efforts to help another palm, the peach palm, recover after a pest had completely decimated the population across the Pacific. This consisted of providing hormones to use in hormone traps to attract and kill the beetles that were destroying the palms, and having a technician come to the river to explain best practice for dealing with the diseased palms.

All of these efforts were made in Los Cocos and in the other project communities of BIOREDD+ with the purported aim of reducing dependence on timber harvesting. As we found, however, and as elaborated further in the following chapters, these projects struggled to reach their targets for a variety of reasons. In practice, then, the "alternatives" on offer during the BIOREDD+ period really were only able to offer, at best, a bit more income for the community in general, with the hope that this might "trickle down" to support reductions in timber harvesting.

Despite the challenges the projects faced to creating much change on the ground, however, they were important for appearances for both project validators and those who might later buy carbon credits produced by the project. Here was a set of activities clearly elaborated on paper, designed to create viable alternatives to timber harvesting for a "community" that depended on this for income. The differentiation among households necessary to make clear that these activities were unlikely to ever reach those who were harvesting timber was too much detail for these sweeping, and homogenizing, narratives to capture. Nor were these narratives likely to reveal that the projects, while compelling in theory, were unlikely to work in practice thanks to the contrarian social context within which they offered only technical solutions. These limitations are elaborated in Chapter 5, which looks at the livelihood implications of the BIOREDD+ projects.

10 Strengthened Governance

Workshops ended up being the key lever that BIOREDD+ depended on to "strengthen governance" between 2012 and 2015. These workshops reflected the "Governance" pillar of the BIOREDD+ strategy, aimed at "Strengthening local governance capacity for Afro-Colombian Community Councils and Indigenous reserves," and "strengthening environmental governance" (Chemonics International Inc. 2015){ | Chemonics International Inc., 2015 BWNBD796 }. Fondo Acción led "Territorial Appropriation Workshops," designed to remind community members about what they valued most about their territory and think about what kind of care of the territory would be required to protect these valued assets. The idea was to strengthen their commitment to protecting these resources, needed for them to survive and thrive, and to enable them to continue using the territory for their food production and traditional practices. Fondo Acción also led leadership workshops for community leaders, designed to build their capacities to provide compelling visions for their communities and bring other community members along with these visions. The project also contracted local people to hold workshops with the woodcutters in their communities about the possibility of reducing their harvests, reminding them of the harm that over harvesting caused, and its costs for the community. These local leaders also attempted to describe the opportunity that the community had with REDD+ if they were able to slow forest degradation.

During the 2011-2015 BIOREDD+ phase of the project, governance efforts focused on workshops promoting softer skills, including leadership and management "capacity building," in an effort to cultivate a larger group of community members interested in later creating and

overseeing new institutions for forest governance. According to project documents, the program was also supposed to be implementing an "Environmental Governance" line of work, comprising a series of strict and measurable controls on deforestation, including efforts to "increase patrolling and enforcement of forest boundaries." (ecoPartners, Offsetters, and ClearSky Solutions 2015). One BIOREDD+ summary document explained that

> Improving forest governance is an indispensable part of REDD+ projects. It implies oversight and definition of control methods, area demarcation, land use definitions, and organization of forestry production according to pre-defined plans. Activities such as territorial control, use of 'REDD+ promoters',…and dissemination of internal regulations are key elements for reducing forest degradation and deforestation (USAID 2015).

As in many development projects, what was written on paper was not what occurred in reality. Specific forest management and enforcement plans and execution were delayed after the creation and sale of carbon credits. There were several reasons why generic governance strengthening and capacity building was prioritized over more specific efforts. The simplest was that there were finite resources, and supporting communities to develop and execute specific forest management plans would have required a significant investment of time and money that needed to be directed to the technical experts who would be behind the creation of carbon credits.

Yet the Community Council Board had little capacity or desire to exert sovereign control over their community members. Though they were tasked with resolving disputes, there was widespread appreciation of the struggles that each member of the community went through to put food on the table, making people uncomfortable with cracking down on fellow community members for cutting trees. This was, after all, a longstanding livelihood tradition. While the Community Council was tasked with being honest brokers of conflicts in the community, this was generally reserved for addressing interpersonal conflicts. Only where individuals threatened the security of their fellow community members would criminal acts be reported to the municipal authority. Cutting trees to feed their families did not rise to this level.

One issue in which the Community Council tried to be somewhat more aggressive was in encouraging its membership to exert its right to prevent outsiders from coming in to harvest the river's resources. This emphasis bore results: over the course of my time in the river, the village most dependent on timber harvests kicked out individuals from other communities competing with them for these local resources. The greatest challenge to the Community Council's territorial control comes when outsiders seeking local resources are armed actors. The community faced this starting in 2011 with the arrival of parties interested in mining with heavy equipment along their riverbanks, and more recently with people supported by armed gangs forming a small village in the near the ocean in order to harvest the mangroves. The assassination of the Community Council president in 2011, seemingly at the hands of those who stood to gain by the entrance of that mining, quickly silenced the many others who opposed the activity. Thus, it was important for BIOREDD+ to walk a fine line with regards to the particular actions that it encouraged local leaders to take. In a country where hundreds of community and environmental leaders are killed each year by armed actors representing those who stand to gain financially be silencing these individuals, it would be careless to encourage these people to put their lives at risk.

An additional intricacy in the theory of change of strengthened governance was the longstanding customary property rights tradition over the forest. Though there seemed to be an underlying assumption in the framing of Law 70 that these territories were managed collectively, the local property situation was somewhat different than some outsiders imagined it to be. The rules over property in these communities hearkened back to the earliest settlement of these rivers — if you worked it, you could claim it. This held true in the hills where most of the timber was harvested, as well as in the lowlands where rotational agriculture took place. Most of the lowlands had long been claimed for agriculture and were passed down between families, but until recently it was still possible to find and claim areas for cutting timber by clearing the ground around some prime trees in the far reaches of the river's tributaries. As one USAID document citing possible challenges to implementing the project put it: "Property is based on tradition. People can use their land freely, carrying out tree harvesting without following any community rules. These privately owned lands include improved areas, as well as reserve land. It is in these forested zones where the projects BIOREDD+ hopes to reduce the felling of trees" (Econometría-CONIF 2014). The forested zones that the report refers to are the reserve lands that are also privately owned, yet BIOREDD+'s theory of change hoped to push for the community to essentially retake control of these areas to dictate what occurred on them. Despite the external notion of these Pacific lands as operating under communal tenure, then, shifting the thinking of local people to consider these areas as owned and managed by the collective, for the collective, would require a significant leap.

This leap was what COCOMASUR, the community in the northern Pacific that developed the first REDD+ project in the country, had purportedly managed in their own territory. Yet their leadership had a somewhat more modest task in doing so, having just one fifth of the land of Los Cocos, and less than a third of the population. In COCOMASUR, additionally, there was a more immediate sense that without a strong Community Council, their lands could be taken from them at any moment — something that had happened in the recent past to many of their community members, threatened by paramilitaries into selling or simply fleeing their lands before the community secured a collective title. Nonetheless, according to COCOMASUR leaders, this effort had not been easy in COCOMASUR, and it would certainly be a hard sell to community members in Los Cocos. They had been quick to rally behind Law 70 to prevent other people from taking what was theirs, but it would be tougher to get them to support changing practices of private ownership that would in essence "expropriate" land that had already been designated as privately owned back into community control.

The workshops that the BIOREDD+ team organized to support "strengthening governance" were therefore ill-equipped, as one might imagine, to address some of the principal challenges to changing these practices: a distaste among most leaders for cracking down on local wood harvesting, a lack of strength and support to remake property rights and expropriate forests from those who had cut there in the past, an unwillingness to stand up to armed actors at the risk of losing one's life, and a *de facto* private land ownership system that did not align with the broader community control assumed in the theory of change of the program. Chapter 6 assesses what resulted from these governance efforts, and the broader governance impacts of the BIOREDD+ program in detail.

11 Political Context

USAID's BIOREDD+ effort was not eagerly welcomed across Colombia, even within the environmental community. I noted in the previous chapter that some key leaders within the

Process of Black Communities (PCN), the organization that seeks to represent the black communities of the Pacific (though their official membership is a small subset of those), were vocal critics of REDD+ in general and BIOREDD+ in particular (WWF 2013). They were frustrated that USAID had refused to work through them, or to at least to develop the projects in a way that united the communities, rather than working with each separately.

The Colombian Government agencies managing national REDD+ efforts, meanwhile, felt they were being circumvented by the USAID team in a way that was unhelpful to national efforts to reduce deforestation. The Colombian Government could never manage the expense of conducting lidar flights to measure all its forest cover. The lidar flights would be used only for the BIOREDD+ projects, then, duplicating the efforts that the Colombian government would later make to measure deforestation and degradation in the region in order to have a common baseline across the country. Why wouldn't USAID instead have invested its money, as other bilateral aid agencies had, in strengthening the baseline forest cover map and monitoring protocols that the country was developing? The other investors in national REDD+ in the country — Germany and Norway in particular — were quietly exasperated by USAID's solo approach.

USAID had purposefully circumvented the Colombian government, and the PCN. Though most of USAID's funding goes to "strengthening capacity" of Colombia's government to do work themselves, in this case, according to a BIOREDD+ program leader, they wanted to ensure the funding could get directly to the communities. Ironically, perhaps, given how much funding ultimately had to go to foreign, for-profit contractors to make the program work, USAID was concerned that the Colombian government and other intermediaries like the PCN would prevent funding from getting to the communities, and thereby degrade the impact of the project.

Meanwhile, other Colombian NGOs that did have significant experience in Payment for Ecosystem Services and had been having conversations about what REDD+ should look like in the country were also frustrated by being ignored. USAID had even granted them early funding to develop a guide for doing REDD+ in Colombia, but this was not integrated into BIOREDD+ in any coherent manner (Ortega et al. 2010). One of these NGO leaders suggested that USAID was doing it just so that they could "say they have some nice REDD+ projects."

Lopez saw the opportunity for USAID to test the proof of concept for this effort that had been much discussed, though little practiced, around the world. He felt that in order to have a fair test, then, USAID would need to devote as much to the implementation effort, and as little to political favors or erudite considerations of all the pieces that might or could go wrong. Nevertheless, this hostility among those who were otherwise supporters of REDD+ was not an ideal environment for making such a large-scale project succeed.

12 Verifiable?

USAID's formal "BIOREDD+ Program" closed up shop after the projects received validation in 2015. USAID provided a small pot of additional funding to Fondo Acción, starting in September of 2015, to continue project at a minimal level of activity until new funding for verification appeared. After this ran out the projects were rolled into various other USAID efforts, and received support through other bilateral donors and Colombia's Ministry of Environment and Sustainable Development (MADS). Fondo Acción continued to administer these funds, as they had been designated as the official administrator of the project on behalf of the communities. The Peace Accord signed between the Colombian government and the FARC-EP in late 2016 brought another initial burst of funding to the Pacific region, as bilateral donors committed to supporting the implementation of the deal, though this didn't have much impact in the project

communities. Fondo Acción negotiated one pre-sale of 40,000 credits to a broker in London. A number of other investors considered supporting the most lucrative projects in the portfolio, including that of Los Cocos, but nothing was finalized.

Though BIOREDD+ was originally conceived to circumvent the bureaucracy of the central government, actions of that government in Bogotá in mid-2017 dramatically improved the funding prospects for the BIOREDD+ projects. A tax reform bill went into effect in Colombia that included a new tax on the carbon emissions from the production and import of liquid fuels and industrial uses of natural gas. The tax was set at $15,000 pesos per tonne of CO_2e, or around $5 USD. Yet one paragraph in that law stated that "passive" subjects of the tax that could show themselves to be "carbon neutral" would not have to pay the tax. This meant that companies that purchased fuel to power their operations, such as airlines, could get out of the tax if they found a way to become carbon neutral (El Congreso de Colombia 2016). In June of that year, the guidelines for becoming carbon neutral were released by the Ministry of Finance and Public Credit (Ministerio de Hacienda y Crédito Publico 2017). In order to become carbon neutral, these companies would have to invest in carbon offset projects within Colombia that were verified by an internationally-accredited verification body. REDD+ projects were pointed to as examples of the kind of projects that could be used.

In June 2017, industrial companies and airlines operating in Colombia began to seek out REDD+ projects that could meet these criteria. Through talks with Fondo Acción, PRODECO, a coal company looking to offset its diesel use in its operations, committed to buying a first tranche of credits from the BIOREDD+ and COCOMASUR projects. As the BIOREDD+ projects were not yet verified in order to have produced carbon credits, so this would need happen before the money would change hands. This opportunity, described in more detail in the chapters that follow, revitalized efforts to get the projects in the Pacific verified — and also led to several international REDD+ consulting firms setting up permanent offices in Colombia to develop new REDD+ projects. With additional bilateral funding, Fondo Acción was able to coordinate the verification of the projects among these and other consultants starting in mid-2018. By early 2018, an auditor for the verification from Spain had come to evaluate most of the projects. After several rounds of comments and changes, by August 2019, eight years after the BIOREDD+ projects were kicked off, they were generating carbon credits.

13 Conclusion

Despite all the challenges that USAID and its contractors faced to get the projects of the BIOREDD+ portfolio validated and verified, and the limitations this created to fulfilling the theory of change of the project on the ground, these efforts appear externally to have produced a REDD+ success story. Nonetheless, Daniel Lopez, the originator of the BIOREDD+ program for USAID, was disillusioned enough with the process to say, "We aren't going to do any more REDD+ for now. It keeps getting more complicated and more expensive. VCS keeps adding new elements to their standards. At the end of the day, we need something that is flexible and easy for communities." The principal contractors were equally suspicious of the whole enterprise: "This is supposedly a community focused, oriented, led activity, and no community in the world would be able to comply with REDD+ requirements." Another subcontractor noted his ironic principal frustration with REDD+: "Far too much money goes to contractors," while a third suggested that communities would always get the short end of the stick where middlemen could find a way to make a buck off these projects.

The projects have shown that with enough investments in REDD+'s growing technical demands, they can generate carbon credits. In this effort, the technical was privileged over the social, and this emphasis came with tradeoffs that produced material consequences on the ground in these communities and for climate change. These tradeoffs will be further discussed in the chapters that follow. There were other aspects of the projects that, in landing in the Pacific at the moment they did, onto layers of development, violence, black struggle, and a unique history of relationships between community members and their territories in the region, described in Chapters 3, also served to alter the community. Recognizing the fundamentals of these projects' efforts and presence in the communities in the initial validation period offers a foundation for understanding in what ways they have together shaped changes in the communities over the last 8 years. This can then help us to think about the possibilities for the ongoing goal of reducing deforestation and degradation and mitigating climate change, all while providing an additional source of funding to these communities.

In the next chapter, I look closely at the way this project has intersected with, and shaped, livelihoods in Los Cocos relative to La Hormiga, considering what lessons this can add to those produced by studies of alternative development and conservation elsewhere. In Chapter 7, I will overlay these outcomes upon the larger context of REDD+ in Colombia and globally to consider what the results suggest about the role of REDD+ in reducing deforestation and climate change more generally.

Chapter 5. Livelihoods under REDD+: Alternatives, More of the Same, Encumbrance, or Stepping Stone?

1 Introduction

Though REDD+ was primarily conceived as a means of reducing deforestation by compensating local people for any avoided deforestation, concerns about its possible harms to communities living in and around forests quickly led a key group of practitioners and academics attempting to try to shape REDD+ toward using community forestry, being pro-poor, and centering the rights of forest dwellers and users (c.f. Knight 2015; Agrawal and Angelsen 2009; Gover 2016; Mohammed 2011). While some observers insisted that the best that a program like REDD+ could offer, focused as it was on conservation, would be to "do no harm" to forest communities, many others insisted that it must go beyond this – not only for ethical reasons, but also because it had to work broadly for local people in order to succeed (D. Brown, Seymour, and Peskett 2008; Wollenberg and Springate-Baginski 2010). Aid donors and NGOs with pro-poor agendas also saw REDD+ as a lifeline for struggling Community Based Natural Resource Management (CBNRM) and Integrated Conservation and Development Projects (ICDPs), as REDD+'s success would not depend on finding markets for non-timber forest products or attracting tourists. Instead, REDD+ would allow communities to tap directly into markets specifically for the primary ecosystem service it provided: namely, carbon sequestration in a carbon-constrained world.

Yet when it came to the implementation of these projects in communities where local forest-dwellers accounted for most of the forest felling, it quickly became clear that many projects keen on being "pro-poor" would still rely on the fundamental logic and mechanisms of ICDPs to function — that is, that before deforestation could be reduced and carbon credits could be generated and sold, people who were engaged in deforesting activities before would need to be encouraged to take up some other livelihood activity instead. Only then would deforestation levels actually fall and credits be generated. This dependence on other kinds of projects, and often other funding mechanisms to realize the "poverty alleviation" goals of the program suggested that perhaps REDD+'s carbon compensation mechanism *per se* would not improve the livelihoods of local people, but that the overall program might, particularly where supported by traditional aid mechanisms and NGOs (Brown, Seymour, and Peskett 2008). As a result, then, "community-based" REDD+ project plans include a summary of these "alternative livelihood" projects and the ways they are proposed to contribute to reducing deforestation.

ICDP-type alternative development efforts are not the only way for local livelihoods to potentially benefit from REDD+. Rather, the theory of REDD+ suggests it should provide three general livelihood benefits – though not all members of a given community might benefit from all three. First, alternative development investments associated with projects like BIOREDD+, like those of ICDPs, are intended to allow local people to develop new sources of income from more "sustainable" activities, such as agro-forestry, non-timber forest product development, or eco-tourism (Flintan and Hughes 2001). These alternatives are commonly supplemented by environmental education programs to teach young people and woodcutters, for example, the long-term value of avoiding deforestation on their lands, and keeping outsiders out. There are also more concentrated benefits for those hired to work on the project team, such as providing transportation, enumerating surveys, measuring tree growth, or training their fellow community members. Second, sale of carbon credits could provide income to local communities that might

be used for any range of investments, including directly paying woodcutters to stop cutting, supporting reforestation, community development investments such as aqueducts or schools, or developing patrols to keep outsiders from coming in to use the local forest. In some cases, investors, or aid donors, might make these payments to community members before any carbon credits are generated to compensate for activities they are undertaking to reduce deforestation. This is the core motivator of REDD+. Third, keeping forests intact should have, according to the theory of ecosystem services, ecological benefits beyond carbon sequestration that also improve the lives of local people — among these would be less extreme flooding and erosion of nutrients, a cooler local climate, cleaner water, better habitat to support key sources of meat, and access to non-timber forest products including foods and other marketable products. BIOREDD+ acquired a separate Community Conservation and Biodiversity validation in order to indicate that the forest conservation efforts across the Pacific were also conserving biodiversity, for example (Durbin 2013). These broader ecosystem services benefits might also be realized by those who are not engaged in the project directly, but live in the region affected by these ecosystem services (c.f. Atela 2015).

Where REDD+ projects rely primarily on livelihoods-friendly alternative, lower-deforestation development strategies to reduce forest harvests, then, the generation of carbon credits would follow from ICDP "success." REDD+ in this frame would therefore be a new coat of paint atop ICDP beams, with the possibility for the project to generate carbon credits resting on the strength of these beams. Whether it was more like a sealant that might protect and strengthen those beams, simply a façade hiding their rot, or an additional weight that would collapse the whole structure has depended on the project — and what the projects' leaders had learned from ICDPs of the past. In other words, if the efforts to generate carbon credits associated with REDD+, and the funding these credits brought in, were used to help remedy some of the challenges that ICDPs had experienced in the past, then this might be considered something new under the sun.

This chapter uses the example of the BIOREDD+ projects, with a specific focus on the case of Los Cocos, to understand how the combination of ICDPs and REDD+ has functioned in practice and examines what the larger livelihood outcomes of this REDD+ project have been and are likely to be. Have these three livelihoods benefits been realized for forest communities of the Pacific, eight years and millions of dollars later? If not, what has stood in the way? What has the relationship been between carbon credit generation and alternative livelihoods in practice in BIOREDD+?

I make three main arguments in this chapter. First, relying on what happened in the BIOREDD+ livelihood projects and the differences and similarities between the state of livelihoods in Los Cocos and La Hormiga, I argue that the impacts of the project were what one would expect of any ICDP project, rather than the land-grabbing or livelihood-restricting force that many feared would come with REDD+ in its early days. Second, I show how the alternative livelihood investments in BIOREDD+ did not generate income for community members or change community member relations with their local environment but served principally as a means of attracting private investment to the project, and as a plausible justification for the carbon credits generated by the projects. These projects, in other words, suggest that something has changed on the ground that would lead to reductions in deforestation, thereby giving plausibility to the argument that any carbon credits generated by the project are indeed "additional." Without the presence of these alternative development projects, there would be no narrative for the project developers to explain the cause of the reduction in deforestation. Finally,

I argue that even while participation in REDD+ has not yet brought visible improvements in livelihoods or conservation to Los Cocos, the act of registering its standing forests as a valuable product in national and international carbon markets may yet help to reinforce Afrodescendant land titles and bolster the idea of black communities of the Pacific serving as stewards of their environment – a concept at the heart of these territorial claims, as detailed in Chapter 3. In other words, the greatest benefit to participating in REDD+ for these communities is unlikely to be possibilities for new livelihoods, or a healthier forest in the short term, but rather a strengthened claim to their territorial rights *vis a vis* the state. This, I argue, is the principal tenure security benefit of REDD+ in this context, where community land titles have already been granted, and may indeed help to secure the health of the forest in the long term relative to other forests in the region. A key question for this possible benefit going forward is whether the weakening of the local Community Council, driven in part by development and conservation projects, as elaborated in Chapter 6, can be overcome by these benefits, or whether additional exposure to projects is likely to further weaken the river's governing institutions.

I begin the chapter by reviewing the hopes and fears about livelihood impacts that accompanied REDD+ in its early days, and what has been learned about its impacts in practice since. I then use data from household surveys, interviews with community members, interviews with leaders of the BIOREDD+ program, and my months in Los Cocos to describe how REDD+ did — or did not — affect livelihoods in the three ways that REDD+ is expected to within that community. I compare these findings with what was occurring in the neighboring river of La Hormiga, not participating in BIOREDD+, to better understand the balance of pros and cons that the project generated for different individuals within the river. Finally, I reflect on the possibilities of livelihoods benefits of REDD+ coming in the future for these communities, given the carbon credits that the process has generated for Los Cocos to sell and the other benefits that participation in a REDD+ program might bring. In the conclusion, I assess how BIOREDD+ stacks up against other REDD+ efforts around the world in its livelihood impacts and consider what might be learned from assessing the opportunities that the people of Los Cocos and the other communities participating in BIOREDD+ have had to support themselves in the rivers as a result of the program.

2 REDD+ Livelihoods: Hopes, Fears, Realities

When I was preparing to begin fieldwork, living in Bogotá and doing initial interviews and research on REDD+ in Colombia, I ran into the founder and director of a REDD+ investment company in the hallway of an environmental non-profit. I told her about my research, explaining that I intended to research the dynamics of community governance and livelihoods within the BIOREDD+ projects. She quite directly informed me that while social impacts were of course important, my time would be better spent to improve them by researching how to get finance to these projects.

This conversation reflected one of several key divides that has formed among REDD+ analysts – on one side, those who perceive that what REDD+ primarily lacks to realize its full potential as a tool for mitigating climate change, conserving biodiversity, and reducing poverty, is sufficient private and public financing (Streck 2012; Lee et al. 2015, 24), and on the other, those concerned that REDD+'s core incentive structure is likely to undermine the livelihoods of people living in and around project areas (Cavanagh and Benjaminsen 2014). Those pushing for additional finance see REDD+ as a key means to inspire new conservation efforts, and to compensate those who have been conserving for doing so. As long as safeguards are in place to

prevent human rights violations and ensure participation from affected groups (Jagger et al. 2012; Daviet and Larsen 2012) the projects should leave those who depend on the forest better off, even strengthening safeguard implementation and community forest tenure by bringing forests into a global spotlight (D. Brown, Seymour, and Peskett 2008; Chhatre et al. 2012, 656; Larson et al. 2010)

Others who have seen the human rights violations associated with fortress conservation (Brockington 2002; Agrawal and Redford 2009), the assertion of control over forests by colonial and post-colonial governments (Vandergeest and Peluso 2006; McElwee 2016, 29–62; Fairhead and Leach 1996) and "green" grabbing for conservation (Ojeda 2012; Fairhead, Leach, and Scoones 2012), are not so sure that REDD+ will not become the next conservation fad to recentralize or privatize forest control and displace people from their lands (Leach and Scoones 2013; Pearce 2015; Phelps, Webb, and Agrawal 2010; Lemaitre 2011). At best for some analysts, REDD+ would likely reinforce the inequalities generated by policies of the past (Ribot and Larson 2012; Corbera, Brown, and Adger 2007).

There is plenty of evidence to underpin these concerns. Carbon forestry projects that preceded REDD+ did not offer the finest examples for REDD+ to follow, with researchers finding that these projects reinforced existing inequalities or created new ones, fell short on equity between project developers and community members, and crowded out other key subsistence land uses (Nel and Hill 2013; Lansing 2011; Osborne 2011; Peskett, Schreckenberg, and Brown 2011; Cavanagh and Benjaminsen 2014; Lyons and Westoby 2014). The ease with which fraudsters could generate forest carbon credits, sometimes at the expense of the well-being and dignity of forest communities, did not build much confidence for the likely equity of REDD+ either (Lohmann 2010; Martin and Walters 2013, 33–37; Espinoza Llanos and Feather 2011; Babon 2011; Reed 2011). Early projects and policies associated with "REDD+ Readiness" resulted in new enclosures and showed that REDD+ was likely to harm smallholders in cases of customary tenure regimes (Cormier-Salem 2017; Scheba and Rakotonarivo 2016; Kansanga and Luginaah 2019; Leggett and Lovell 2012; Beymer-Farris and Bassett 2012; Veit, Vhugen, and Miner 2012).

These reports coming out of early REDD+ efforts on the ground led to the prioritization of rights in many national and project-level REDD+ development and evaluation efforts (Larson et al. 2013), even as those advocating for REDD+ as a forest conservation mechanism worried that overly emphasizing "co-benefits" or making REDD+ "rights-based" would slow its pace at a moment of accelerating deforestation and climate change (Bolin, Lawrence, and Leggett 2013; Barbier and Tesfaw 2012; Visseren-Hamakers et al. 2012), or scare private REDD+ investors off (D. Brown, Seymour, and Peskett 2008). As a result of these mixed motivations and priorities behind REDD+ projects, their livelihoods implications have varied according to local contexts, project proponent goals, REDD+ design features, and execution details (Milne et al. 2018; Amy E Duchelle et al. 2018).[22]

[22]Some researchers of REDD+ claim the research findings of the last decade on REDD+ are "preliminary". In one recent synopsis of these impacts, the authors argue, "The novel feature of REDD+ -- results-based payments at jurisdictional scales – remains largely untested due to a lack of international finance and the complexity of such systems. Therefore it is impossible to make rigorous generalized conclusions regarding its current impacts and future potential" (A. E. Duchelle et al. 2018, 1). There are no guarantees that REDD+ will one day align with the "wishful thinking" of REDD+ optimists (Sikor 2013, 47), nor that the livelihood "co-benefits" for forest peoples of REDD+ would be realized with greater international finance (Sarmiento Barletti and Larson 2017, 2). So I focus here on what we have learned from what REDD+ has been thus far and where it might go.

REDD+ project proponents have agreed with the financier that the lack of funding scale and certainty has prevented their projects from incentivizing communities to reduce deforestation with the promise of funding, in the ways it was originally envisioned to work (Fishbein and Lee 2015; Simonet et al. 2015). One sweeping study of early REDD+ efforts carried out between 2012 and 2013 by a large team of researchers, for example, found that project proponents were not yet using carbon credit sales as a carrot to motivate deforestation reductions because they were not guaranteed, and they could not promise to replace their current livelihoods with those funds (W. D. Sunderlin, Ekaputri, et al. 2014, vi–vii). Instead, REDD+ on the ground looked more like the ICDPs of the past in many of these places, often attempting to layer REDD+ atop these ongoing projects (W. D. Sunderlin, Ekaputri, et al. 2014, vii). If the success of deforestation reductions to generate REDD+ credits depended on the success of these project, the authors noted, this would not bode well for REDD+, given the limited benefits that ICDPs offered in the past (Hughes and Flintan 2001; K. Brown 2003)– and that REDD+ was designed, in part, to overcome these limitations (W. D. Sunderlin, Ekaputri, et al. 2014, vii). In addition, where REDD+ is built upon ICDPs, as in the BIOREDD+ case, the legacy of those ICDPs and their community impacts shape the REDD+ effort and local perceptions and expectations of REDD+, for better, or more often, for worse (Bolin and Tassa 2012; Atela 2015).

Regardless of whether REDD+ projects are promoted in communities with ICDPs in place, the local context into which REDD+ enters is inevitably messy, with great heterogeneity within communities and between them. Histories of colonial, government, or corporate land displacement are common in these forests, as are layered authorities – traditional authorities often mix with recently decentralized local governments trying to find their own way (Ribot and Larson 2012). These areas are commonly in migratory flux, with people either moving into them as frontiers for new agriculture (Barbier and Tesfaw 2012, 888), such as in the cacao lands of Southwestern Ghana (Knudsen and Agergaard 2015) or leaving them to seek opportunities in the city (c.f. Hecht et al. 2015). Migrant farmers or nomadic herders may also be part of the landscape (Amfo, Aidoo, and Mensah 2020; IUCN 2014). Mixed tenure regimes are also common, with some forms of tenure recognized through a formal registration process with the state, others recognized by traditional authority or custom, and others agreed within the community (Wily 2011) - even as trees may fall under a different tenure regime entirely (Cronkleton et al. 2010; Fortmann 1985). Land tenure for those who have recently moved to the region and are “squatting” tends to be particularly precarious and contested (Barbier and Tesfaw 2012, 888–89). These complex contexts have made even the most genuine efforts to make REDD+ “pro-poor” come up short in some respects, even generating conflicts (Scheba and Rakotonarivo 2016).

Of these complexities, land tenure has been singled out in discussions about how REDD+ might affect livelihoods (Larson 2011; Cotula and Mayers 2009; Naughton-Treves and Wendland 2014), as REDD+ has provoked concerns among Indigenous peoples and NGOs not only about land-grabbing (Tauli-Corpuz et al. 2009), but also worries that the program might slow or turn back progress toward community land titling globally (W. Sunderlin 2011). Other concerns include that those without formal land tenure recognition would be pushed off common lands or not receive REDD+ benefits, and that benefits from REDD+ may not be distributed according to work or opportunities foregone if carbon tenure is not clearly assigned (Larson et al. 2013, 680). In response to these concerns, some powerful REDD+ funders have argued that addressing tenure conflicts and developing clarity about carbon tenure, are key enabling conditions for REDD+ to proceed (Larson et al. 2013, 680). In 2010, the UN Framework

Convention on Climate Change's (UNFCCC's) formally recognized the importance of tenure in the Cancún Agreement. The Agreement calls on country parties "to address, inter alia, the drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations and the safeguards identified in paragraph 2 of appendix I to this decision, ensuring the full and effective participation of relevant stakeholders, inter alia indigenous peoples and local communities" (United Nations Framework Convention on Climate Change 2011, vol. FCCC/CP/2010/7/Add.1-Dec. 1/CP.16, para. 72). While many are concerned by the risks posed by tenure uncertainty and the possibility of additional enclosures via REDD+, the other reasons that tenure has been a main focus are that there could be an opportunity, via the incentives of and international attention on REDD+, to expand secure communal tenure for those living in and around forests via REDD+, in part because there is by now a solid body of evidence correlating secure communal tenure with better forest conservation outcomes (Robinson, Holland, and Naughton-Treves 2011).

The REDD+ projects that have reached later stages to date have mostly been supported by bilateral aid or aid-minded wealthy project developers such as Mike Korchinsky, the founder of Wildlife Works (Wildlife Works 2021). These projects have focused on smallholders and been keenly aware of tenure issues, as captured in project plans and in the other documents produced about their efforts, but are not always able to resolve them, even where laws appear on paper to grant security to forest communities (Larson et al. 2013; Sunderlin, Larson, et al. 2014; Saeed, McDermott, and Boyd 2017). Nonetheless, some projects have made progress at a local level, while project proponents and REDD+ donor countries and "REDD+ readiness" programs have advocated for tenure reform at the national level. In Kenya, for example, research found that the presence of a REDD+ project that necessitated firmer tenure clarity helped to reinforce community tenure rights, avoiding a multiplication of inequalities (Atela 2015, 122). In Brazil, researchers found REDD+ to be motivating land tenure reform across several project sites (Duchelle et al. 2014). Cases like these, however promising, have also reiterated both the difficulties and high costs of formalizing tenure, the importance of tools of tenure security that provide for various kinds of titling – and other forms of tenure recognition – and the limits, drawbacks, inequalities that play out between genders and those with differing social and economic status, and other forms of conflict posed by tenure formalization (Larson et al. 2013; Duchelle et al. 2014, 63; Sunderlin, Larson, et al. 2014; Loaiza, Nehren, and Gerold 2016; Scheba and Rakotonarivo 2016). Given the cost, high stakes, and political challenges of managing or promoting tenure reform, many REDD+ project proponents are likely to choose to work in places where tenure is already relatively well-established and favorable to the development of more equitable REDD+ projects (De Oliveira et al. 2014). This was the case for the BIOREDD+ projects, as community land titles were granted over the fifteen years preceding the start of BIOREDD+ to the communities that participated in the program.

Most REDD+ projects have followed a typical ICDP-like pattern, with restrictions on particular uses of land – preventing clearing for agriculture, or timber harvests, for example – accompanied by efforts to provide "alternative livelihoods" (Sills 2014, 15–16). In some cases, this has included creating restrictions on use of conservation areas, which has led to community members being resettled from these spaces (Sarmiento Barletti and Larson 2017; Asiyanbi 2016; Vatn et al. 2017). In the case of a project in Tanzania, for example, a small portion of the community was displaced from its lands to a different part of the community's territory to make room for protected zones, but this did not prevent the community from receiving much less funding in carbon payments than they had expected (Vatn et al. 2017, 83). Indeed, research has

found that even when carbon benefits are received by these communities, they are commonly insufficient to make up for the loss of livelihoods and may not be distributed to those most affected by the project (Duker et al. 2019; Vatn et al. 2017, 83; Dressler et al. 2015). Interestingly, the Global Comparative Study on REDD+ found that across 23 different REDD+ initiatives, self-reported well-being *dropped* on average in the project communities, while it stayed about the same in the control villages – despite the fact that people in project villages viewed many of the REDD+ interventions positively (Larson et al. 2018). Women's decline in perceived well-being in intervention villages was more dramatic than the general population, perhaps in part because women are left out of negotiations and decision-making in some of these REDD+ projects (Larson et al. 2018). The failure of projects to meet the expectations they set may contribute to this perceived well-being decline (Larson et al. 2018, 97). Changes in perceived well-being may also be a result of conflict. Another synthesis of REDD+ studies found that REDD+ had generated additional tensions or conflicts in implementation communities in 36 out of 53 cases assessed (Milne et al. 2018).

Another reason that people may be dissatisfied with REDD+ is that they perceive inequity in benefit distribution from the projects – a problem that will not necessarily be addressed with simply *additional* funding. This distribution has direct implications for whether REDD+ reduces deforestation, as well as the overall perception of, and interest in, the project by local people (Wong et al. 2019). Benefit distribution focuses not just on agreements between community members and with the state and project implementer, but extends to the balance of benefits shared among all the actors that bring the idea of REDD+ to life, including those paid to promote the concept, those paid to develop projects, and those paid to measure carbon – in addition to those actually asked to change their livelihoods in exchange for carbon credit funds (Sikor 2013). The justice and equity implications associated with different benefit distribution formulations have been much discussed in the literature and guidelines around REDD+ (Luttrell et al. 2013). For example, should the greatest deforesters be rewarded for changing their past bad behavior, or should long-time conservers see most of the benefits, for example (Börner et al. 2010; Luttrell et al. 2013, 8–13)? The call for clarity in benefit distribution at international, national, and project levels has led to the development of explicit agreements at the start of many REDD+ projects.

Different projects have defined "benefits" differently and used a variety of methods for distributing whatever benefits there are. Some projects offer upfront cash to those with legal land or forest ownership for participation in conservation programs, such as following particular agricultural practices, with future funding linked to verified emissions reductions (Luttrell et al. 2013, 8). Others provide support for alternative production efforts or for adding value to products, such as aiding the community in the process of getting Forest Stewardship Council (FSC) certification for local timber (Luttrell et al. 2013, 8). Funding and goods have been distributed at the village level in some cases, while others go directly to households or individuals, or activity groups formed by the projects (Luttrell et al. 2013, 8). In other projects, the "benefits" up front have consisted of developing the project and forest management plans, with all funding for the community dependent on carbon credit sale results (Luttrell et al. 2013, 8). Few projects have emphasized providing benefits to the poorest community members, *per se*; instead, they have mostly enrolled anyone who commits to the program, or the whole community equally. Given that the poorest individuals may be those most dependent on direct forest use or subsistence agriculture, this means benefits distributed equally across a community may not make up for costs to those individuals of restrictions. In some contexts, donor-backed projects have been able to achieve a balance of both incentivizing deforestation reductions among those

most responsible for deforestation in the past -- wealthier ranchers -- while also investing in projects for the broader community (Atela 2015). Additionally, researchers found that, in line with ecosystem services theory, community members downstream of the project have also interpreted investments in improved water quality and distribution management as benefits to them (Atela 2015).

In sum, REDD+'s livelihood impacts on those in forest communities have varied, but many projects have pushed for conservation efforts while supporting some alternatives – typically either alternative development projects or cash payments – with the hope for additional payments from carbon credit sales in the future. These interventions have landed differently among community members, and while "community-based" REDD+ may be "pro-poor" at a general scale, by supporting communities that generally have few significant income sources, the poorest within these communities may not always benefit, or may be actively harmed by these projects. Funding from carbon credit sales have been much more limited than many communities expected, and many NGOs initially attempting to add REDD+ to their ICDPs gave up as a result of the complexity and costs of doing so, without any benefits assured (Sills 2014).

3 Ghosts of ICDPs past in Los Cocos

USAID's BIOREDD+ program had much in common with the donor-driven REDD+ efforts assessed around the world. It avoided some of the thorniest tenure issues that REDD+ projects had been encountering by working only in communities which had been granted community titles to their lands by the government. USAID's ambition in starting the BIOREDD+ program was to layer REDD+ atop the Integrated Conservation and Development Projects (ICDPs) that USAID and other bilateral donors had been supporting in the Pacific over the prior decade (Simonet et al. 2015; Sunderlin, Pratama, et al. 2014, 16). Unlike many of these small projects led by NGOs, USAID had the funding and ambition to push the REDD+ part of the project forward even when it became clear that it would be far more complex than Daniel Lopez, the primary architect of the concept at USAID ,had realized. How did this layering of REDD+ atop ICDPs of the past affect the project's efforts, and what did USAID and Chemonics learn from these past efforts?

In one sense, BIOREDD+ benefited from these previous projects because in several of the major alternative development projects it supported, it was merely extending past development projects, with very short project lifecycles, that had not borne fruit. This included the cacao planting effort it supported in Los Cocos, which had originally been a project of the UN Office on Drugs and Crime (UNODOC) to replace or prevent the expansion of coca farming. It also included a continuation of funding for a sustainable fishing cooperative in Los Cocos.

Yet BIOREDD+ also had to manage with the pros and cons of the earlier design and execution of the projects it carried forward, including the expectations they had established, and the disillusionment they had generated. Though many people in Los Cocos reported that they believed that "projects" generally would be the primary means for improving their livelihoods, few had seen lasting – or any – benefit from projects of the past.

An example of the dashed expectations and frustrations that alternative development projects can generate emerged in a visceral way as my research assistant, Carlos Felipe, and I were walking into a village center one evening, not far from the ocean. We were coming from a classroom of the elementary school on the edge of town after an afternoon of training local enumerators to carry out household surveys. On the Main Street, as we approached the local store around which the action of the town revolved, an older man emerged to confront us from a

small party of friends drinking beer in an alley between houses. He began an altercation with Carlos, demanding to know where the goods he had been promised as part of a project had gone. As his friends pulled him away from us, it quickly became apparent that he had fair-skinned Carlos confused with another *paisa* who had come through town in the past, making promises of development through a project. This was a man we had not met before because he had been in the city on our previous visits to the village.

Though this individual was inebriated, the incident served as a telling glimpse of the experiences people in the river had with *projects* in the past, and what such projects might mean to them. Projects were what entered the community, riding a promise of development. In exchange for coming to meetings, they would provide goods, or training; the man's anger suggested that the projects failed to live up to the expectations of some.[23] It quickly became clear in our work, too, that, other than those directly employed by the projects or the leaders managing the projects, community members had little sense for the bounds of the projects and who was supporting them.

The ghosts of projects passed were everywhere in our work. As elaborated in Chapters 4 and 6, efforts to stop deforestation in the past in Los Cocos through forestry enterprises had turned out poorly — the enterprises had failed, wood harvesters ended up working as they had in the past, selling to intermediaries, and peoples' interest in participating in the Community Council process waned, along with their confidence in their neighbors. USAID's environment director attributed the failure of these forestry enterprise efforts across the Pacific primarily to the lack of a market for the sustainably certified wood that these projects had hoped to generate. Nobody in the cities was willing to pay the higher prices for the wood that would be required to support these enterprises.

Projects were also, apparently, part of the reason that local people had come to distrust working in groups with fellow community members, as these projects commonly required close coordination, without any opportunity for participants to choose their fellow group members and uncertain final benefits. Toward the end of the REDD+ project, the Colombian state brought in just such a project, which required groups of people in Los Cocos to form businesses and invest the individual portion of funding each person was given to get the business up and running. Unsurprisingly, a dozen individuals with no business experience would have trouble coming together to run a business, and indeed, many of the projects quickly collapsed under disagreements between the co-owners and anemic demand for their products.

The conclusion that some people took from that was a phrase we heard repeated in several interviews: "Black people can't work together." This was a strange thing to hear, given that people of Los Cocos had long collaborated on various livelihood efforts, and had organized together to secure title to their lands. It appeared, however, that years of development projects aimed at creating individual income, had contributed to changing expectations around shared work. At minimum, these earlier projects had conditioned people to understand that their personal investments participating in development projects would yield personal benefits in the form of income, because that is how the projects were marketed and structured. This contrasted with a long history of everyone getting by via collaboration. The resources that came into the community with the projects even appeared to be a barrier to community members collaborating. One woman in Los Cocos who had previously been on a village leadership committee put it this

[23] The following day, in a sober state, the gentleman came by the home we were staying in to apologize to Carlos for his actions and explain the context for his frustration.

way, “The only activity that works in the community is the *cambio de mano* (labor swap), which was called by the elders before ‘*la minga*’. For example, they said, ‘Let’s go everyone, there’s a field of mine that needs to be weeded. After let’s go to do yours, and then yours.’ That, yes, works (as a project) because it comes from years ago...That way houses get built. Working in *minga* works, but only when there is a little money involved.” In contrast, BIOREDD+ came with money. As a result, project participants even expected to receive funding from the project to pay for helpers to tend their new crops from the project. The NGOs supporting these projects were exasperated and perplexed by this expectation. How could a development project possibly pay for all the labor associated with carrying out the project? In contrast to the community members who had planted labor-intensive cacao at the suggestion of these NGOs, the contractors considered the labor of the recipients of the cacao the “*contraparte*” or their “personal investment” to make the project work.

As the next section details, several of BIOREDD+’s projects would require significant cooperation among many different community members to work, and the legacy of projects that had collapsed under the weight of infighting would be a difficult place for them to start.

4 BIOREDD+’s troubled livelihood investments

In my interviews with the principal contractors for the BIOREDD+ program, they emphasized that the program had invested relatively little in alternative livelihood programs or in actually attempting to control deforestation in any way, instead focusing primarily on securing carbon credits and making the REDD+ aspect of the program work. As noted in Chapter 4, the directors of the project from USAID and Chemonics made this decision a year into the project, in an effort to define a direction amidst tension between those on the team who wanted to make the alternative development projects more participatory and tailored to each community’s needs from the start, and those who wanted to make sure that the goals of getting a million hectares within a REDD+ portfolio were achieved. It had become clear by that point that doing both would be impossible in the timeframe envisioned for the project.

The project plans and promotional materials, of course, did not reflect this shift in emphasis, instead highlighting the myriad ways that the projects were benefitting participants through these alternative livelihood investments. This was in part because these materials were made precisely to attract private investors to support these livelihood projects. As explained in Chapter 4, USAID had hoped to take investments in BIOREDD+ out of the aid realm and into the for-profit investing realm, relying on new tools like development bank backing. The leaders of the BIOREDD+ team, according to their own telling, therefore dedicated more of their time to attracting these investors than in the projects themselves over the project period.

While there may have been less funding or project developer time devoted to materially changing anything on this ground, the limited investments in these alternative development efforts did affect community members. These efforts and their distributive impacts, like BIOREDD+’s investments in carbon credits, are therefore worth understanding, and are described in the sections that follow.

5 Alternative Development

The Los Cocos BIOREDD+ project included several “alternative development” efforts, some of which were rolled over from previous development and conservation — as well as anti-narcotics — projects. These included a fishing cooperative that was supposed to cut out middlemen for

local fishermen and allow them to sell directly to gourmet restaurants in the cities of Colombia; a project to plant cacao trees that started as a coca-substitution effort; and a pilot effort to start a *naidi* ("*açaí*") harvesting and processing program. On top of these, at the request of one of the leaders of Los Cocos, the project team added support for a small effort to help speed the recovery of a major staple crop of the community, the Peach Palm, or *chontaduro* which had died off across most of the Pacific of a mysterious plague that had wiped out all of Los Cocos' crop between 2012 and 2015. Each of these projects is summarized below.

5.1 Fishing Cooperative

USAID had invested more to support the development of a fishing cooperative in Los Cocos than any other project by the time BIOREDD+ came to a close in 2015. They had built a new storehouse for fish in a beachfront town in Los Cocos, equipped with multiple ice machines and a large solar panel array to power them. They had bought a number of boats and outboard motors for the leadership of the cooperative, and fiberglass canoes for the women from the area who went to collect shellfish from the mudflats of the mangroves. They'd supported the purchase of equipment for larger fishing vessels. They'd sponsored many workshops on what constituted sustainable fishing and were paying multiple community members to coordinate the association. They had even purchased a high-end refrigerated truck to ship the cooperative's fish from the shore inland.

The idea behind all this was to improve the income that fishers from the community received for their work, and to make their fishing practices more sustainable in the process. Small scale fishers worked in notoriously difficult and uncertain conditions in the region and were at the mercy of those who loaned them the equipment to fish, and intermediary buyers — often the same people. High-end restaurants in Bogota wanted to distinguish their products, and a collaboration known as "ecoGourmet" was created between several cooperatives on the Pacific and Caribbean coasts, these restaurants, and environmental groups like Fondo Accion and Conservation International.

All the interviews we conducted with different members of the cooperative, however, suggested that it existed "on paper only." The interviewees pointed to various reasons for its struggles. A bad omen for the future of the collaboration occurred when the boats and motors that were provided to the cooperative were quickly taken up by individuals for their personal use. Shortly thereafter the motors were stolen out of the homes of the elected leaders of the cooperative. Commitment to the group also proved a central problem. Either local fishers could not participate in it because of their debt obligations to intermediaries on the mainland, or had little interest in participating because of the extra expense to them of bring fish back to sell to the cooperative in the river, rather than taking it straight to the city. The cooperative therefore struggled to recruit committed members even after gifting boats, fishing gear, and motors across the fishing villages to get people on board. One key leader of the cooperative suggested that the failures were grounded in a larger attitudinal shift among people toward being more "egotistical" and "distrustful": "We as fishers, before having this bad, broken mentality...more than once we had gotten together in groups and spoken of the need to create something that would allow us to commercialize all our products." Contradicting this sentiment, though, another cooperative formed separately in one of Los Cocos' fishing villages, with the same goal of cutting out intermediaries, but with a desire to have a smaller, more manageable group to work with. While the members of this small group had been, on paper, all members of the larger cooperative, their collaboration reduced some of the need that its participants had felt to participate in the more

unwieldy larger cooperative. This smaller group also practiced a communal form of fishing requiring a dozen or more people that they considered sustainable. EcoGourmet disagreed with this assessment, and, after a series of back-and-forth discussions over several months, disallowed the fish caught with this technique to be certified as sustainable. This cut one of the larger sources of fish, and larger group of those catching them, out of the cooperative.

The women who collected shellfish, meanwhile, told me that they had been entirely left out of the cooperative process, other than receiving training in harvesting mollusks of a sustainable size and some receiving canoes.

With all of these fishers without clear benefits from the cooperative, there were few individuals left with the energy and inspiration to move the effort forward. As a result, the extensive training that USAID provided for the fishers in properly filleting fish for the restaurants in Bogota was for naught. That the refrigeration truck was damaged in an accident not long after the cooperative received it seemed in keeping with the string of challenges the project had experienced to date. The president of the cooperative, who had received funding for his work with the cooperative for several years, suggested that there was more that USAID and Fondo Acción could do to help the cooperative through its challenges. In particular, he argued that more administrative support could help them, though the manager of the project at Fondo Acción explained that there had been multiple administrative trainings with little change.

Even after over five years of efforts and investments, few of the originally-established goals of the cooperative had been realized. The greatest benefit of the project was a solar-powered ice machine managed as part of the cooperative, and which the fishers, working “for their own pockets,” did use to preserve their catch.

5.2 Cacao

For over a decade in Colombia, cacao agroforestry has been touted as a coca substitution activity. In the lead up to and in the wake of the 2016 peace deal between the FARC-EP and the Colombian government, cacao was promoted as a “peace crop” that could provide significant income to rural regions without as much deforestation as, for example, cattle ranching or oil palm plantations. As the FARC had controlled much of the coca production across the country, cacao was also pitched as a tool for rural farmers to escape from their dependence on that crop — and the FARC buyers. Cacao can grow well in some — though not all — regions where coca thrives, and the global markets for it have grown rapidly over the last decade, particularly as demand is increasing in Asia.

The UN Office on Drugs and Crime (UNODOC) and USAID both supported many of these coca substitution programs in Colombia. Los Cocos, which had been sprayed multiple times by glyphosate via plane, in operations sponsored by the US government, therefore made a logical target for a cacao program. This program started as a joint effort organized by these agencies, with financing passed through the newly-formed Colombian “Special Administrative Unit for Territorial Consolidation” (UACT). The UACT’s primary mandates were to consolidate the presence of the state in rural areas around the country and reduce cocaine production, and cacao planting in Los Cocos and other parts of Colombia was designed to do both. Once Los Cocos had committed to participating in BIOREDD+, USAID rolled the cacao effort over to the project that was, in contrast, focused primarily in theory on reducing deforestation.

The program sought to provide 60,000 cacao seedlings to community members, with which they would plant some 60 hectares total across the river basin. Each participant in the program would receive 1-2 hectares worth of seedlings, and the rest of the funding would go toward

training these farmers to care for their cacao crops and produce marketable cacao beans. By the time the seedlings were distributed to program participants, over 22,000 of them had already died, according to project documents.

There are several potential benefits of cacao production that development actors commonly refer to in justifying its role in projects aimed at coca substitution and forest conservation. For one, when cacao is planted under shade crops, as was the idea in the BIOREDD+ program, it does not affect yields and it sequesters more carbon than in monocultures (Rajab et al. 2016). Where cacao planting is undertaken at sufficient scale and markets or buyers exist nearby, farmers can fetch a decent price for cacao relative to other local crops. It can keep better than many of those crops, making timing of the sale less critical than for most produce. Given that no crop can compare to coca in the income it generates for farmers, it is hoped that having a crop that gets at least closer to those levels of income, but that does not come with the security threats that coca does, will convince farmers to make the switch.

In making the case for cacao in BIOREDD+, several members of the BIOREDD+ team described what they saw as an additional benefit of the crop for conservation: the amount of work and time required to produce a good crop of it. According to this logic, people focused on producing cacao would have little time left over for coca farming, gold mining, or timber harvesting. Because cacao is susceptible to many diseases and pests (see Figure 5.1), vigilance and regular care is required by farmers to produce strong crops. Of course, for people accustomed to planting a crop and coming back once to weed and once to harvest over the following months, the demanding cacao crop was a source of frustration, and one that would need to produce significant benefits to justify this investment. Several of those who planted it told me that they had insisted to the Fondo Acción staff that they should be given funding to pay day laborers to take care of their cacao plots — a demand that Fondo Acción rebuffed.

Figure 5.1. Cacao suffered from many diseases and pests in Los Cocos and required regular tending and chemical applications. This pod on a Los Cocos plot shows signs of black pod, and had also been chewed on by a squirrel.

This gap between design and reality was also visible in a more fundamental problem with the cacao program: while some of those who volunteered to plant cacao had planted coca in the past, among those who harvested timber as a primary or complementary livelihood, participation in the program was proportionally lower than other groups. While woodcutters who cut either task their principal or complementary source of income were among the primary breadwinners in about 31% (CI: 21.80%-40.75%) of households surveyed, they only made up about 22% (CI: 16.61%-27.39%) of those surveyed who were participating in the BIOREDD+ cacao program (these 95% confidence intervals show there is a statistical significance). Those with the land and time to invest in the cacao program did not align precisely with those frequently off in the woods cutting. To the contrary, many of those who had to cut timber often did so in part precisely because of they had access to less good land for agricultural crops. As a result, then, cacao did not, as theorized, woo timber harvesters out of the woods. Instead, the people who did plant cacao were often kept from other consistently lucrative livelihoods in which they also participated, such as distilling alcohol, while tending the trees. The assumption that cacao would somehow land in the hands of those who cut wood could be blamed, in part, on the common development myth of homogenous communities, and the project appeared to fail to consider the pre-existing differences between individuals and their land access that would shape the effectiveness of such an assumption (c.f. Skutsch et al. 2018; Agrawal and Gibson 1999).

The person in the river most dedicated to making a go of the cacao told us that he thought the distribution of the seeds was also a problem, as everyone wanted to benefit from the program. “The big error that there was in the cacao project was that the people from the mouth of the river also wanted to receive cacao, even though there was already the fishing cooperative there and the

soils were not good for cacao there. These people planted cacao and left it to die – the people who are dedicated to shellfish harvesting don't have the aptitude for taking care of cacao...We lost it all: the seeds, the technical assistance, the money, it all died – we buried the money...If we had planted cacao where it really can be produced, we would be making a little money from it."

Several technical challenges to the cacao's success also arose in Los Cocos, and none was more problematic than the cacao's planting location. While cacao needs plenty of water, it also hates to be flooded, and the trees were planted within the flood plain for the river. Community members blamed this oversight on the first technical contractor hired to guide community members in their planting under the project's previous guise. The large and enduring flooding events that generally happen once every few years in Los Cocos therefore left the roots soaked for days. One farmer explained, "When the *creciente* (flooding) comes, all the pods just dry up and fall off." This was affirmed by several other farmers. Farmers were also thwarted by a variety of fungi, and squirrels taking bites out of cacao pods. None of the farmers had learned how to ferment the cacao beans enough to actually do it on their own - critical for the chocolate's taste — and in their very rainy climate, they struggled to dry the beans without the proper space, equipment, or someone who could be constantly vigilant to cover the beans when the rains came to do so.

Nonetheless, many of the farmers were trying to make the cacao work. When they had beans ready for sale, however, they couldn't find a buyer. The technician brought on to the project to teach farmers how to care for their cacao ended up serving as a middleman, buying the beans directly from the farmers with his own funds, and selling them on to buyers willing to purchase lower quality cacao. He explained that he was doing this in order to encourage them to continue farming, with the hopes that once the community was producing sufficient and higher quality cacao, they could coordinate themselves and have a representative of a local chocolate company come to pick up their production. In the meantime, farmers explained, the cacao they had worked so hard to produce was worth "a few pounds of rice" every few months.

5.3 Naidi

Another option for the BIOREDD+ projects was the cultivation, harvesting, and processing of *naidi* (*Euterpe oleracea*), known more commonly by its Brazilian name, *açaí*. The *naidi* palm is native to the areas along the ocean along the Pacific coast, preferring occasional salt-water flooding with the tides. This palm fruit has become known as a high antioxidant "superfood," which has made its way into a variety of products in US and European markets (Firman 2018). In regions where it is native or can thrive, it has been relied on as a non-timber forest product for sustainable development projects (Neumann & Hersh 2000).

In Los Cocos, there were large native stands of *naidi.* The leaders of the BIOREDD+ project had initially envisioned that local people could harvest these fruits in their peak season and send the fruits on boats to a *naidi* pulping and freezing facility in Buenaventura. However, problems with that facility prevented this plan from advancing, and USAID and Fondo Acción decided instead to provide a boat and small pulping equipment to a few community members in Los Cocos as a pilot for a larger program that could follow BIOREDD+ if successful. By the time BIOREDD+ had ended, however, there was still little clarity about whether such a project could be successful. Two major challenges stood in the way. First, the window of ripe fruit was fairly small, and it required pulping the fruit almost immediately as it went bad within a few days — yet the single pulp machine was not able to handle this load, and much of the fruit harvested therefore went to waste. *Naidi* also required immediate freezing of the pulp and a cold chain to

its destination. The project had not provided the equipment necessary to realize this cold chain, however. The community leaders of the project noted that the extreme seasonality of *naidi* in any case made it unlikely to replace more consistent sources of income.

5.4 Chontaduro

One final livelihood effort that BIOREDD+ helped with in Los Cocos was an attempt to recover a palm tree that had long been a source of food, cooking oil, and income for the community. These peach palms, locally known as *chontaduro* (*Bactris gasipaes*), had been afflicted with a mysterious disease across the Pacific in the early years of the BIOREDD+ project, and had stopped producing altogether by the time I arrived in Los Cocos in 2015. Every person I spoke with had a different story about what had caused the collapse of the crop. Two different beetles appeared to be damaging different parts of the palms, but many speculated that it was advice from development projects of the past that had weakened the palms and made them susceptible to these attacks. This advice included to strip the palms of their natural spikes, to clean all fruit off the ground from under the palm, and to apply a range of pesticides to the plants. While there was a major agricultural research institute based just outside of Cali, the principal city in which these fruits were sold, there had been little effort devoted to researching the cause of this particular plague. Lamenting this neglect, a community leader in an interview contrasted the one scientist who had looked into the *chontaduro's* fate to the hundreds or thousands who would certainly be studying similar destruction to coffee, the country's lead export crop.

The decimation of the crop had contributed to increasing food insecurity in Los Cocos, taking away one of the only consistent sources of food and income for community members. Bernardo, the young biologist who was one of the leaders of Los Cocos doing the BIOREDD+ project, pushed Fondo Acción to invest in addressing the plague by bringing in hormone traps to attract and kill the beetles. He was successful in securing this initial investment, though the farmers were expected to start purchasing their own hormones after a few months of treatment. They began experimenting with several other locally available attractants, however, and found that locally-brewed fermented sugarcane juice seemed to work well, too.

By the time I left the river in 2017, the *chontaduro* crops had just begun to recover on the farms that were using this technique and replacing their traps regularly. Though this project had required the least investment from USAID, then, the recovery of the *chontaduro* had the greatest impact on the greatest number of individuals throughout the river. The demands of local people put this possibility on the radar screen of the development actors.

6 REDD+ Credits

Though the whole economic theory of REDD+ depends on people changing their behavior to receive payment for this change, this incentive structure has rarely played out in REDD+ projects. Some people in Los Cocos and elsewhere in the BIOREDD+ territory had certainly heard, through the trickling down of information about REDD+, of the concept of being paid to stop cutting trees. Yet there is so much uncertainty about whether doing this will actually generate REDD+ credits, and the process to generate these credits so expensive and complex, that the BIOREDD+ team decided it would be disingenuous for those leading REDD+ projects to use carbon payments as a motivation for those in the project to stop cutting wood. Given the recent construction of these forest carbon markets, the rules set by experts (see Chapter 7) are also continuously changing, such that a project that could have generated credits under past rules

might face additional barriers to do so by the time it has gone through the years that it takes to validate and verify these projects for the carbon market.

In BIOREDD+, then, USAID and Chemonics were cautious about what they promised to the communities in the program. No carbon credit sales were guaranteed, and the processes that USAID and Chemonics were going through to get these credits were fully explained only by the community leaders. As the primary carbon measurements of the forest took place from the air, and there were no local patrols[24] undertaken to protect the forest, most people were unaware of the ongoing effort as part of BIOREDD+ to generate carbon credits.

Nonetheless, as described in detail in Chapter 7, the project in Los Cocos *did* end up generating carbon credits, 158,490 of which have been sold to a mix of coal companies, petroleum companies, and a company in the UK that serves as an intermediary between businesses that want to offset portions of their operations with carbon credits (Verra registry 2020; interviews with community members). If these were sold for 5 USD each, then, Los Cocos would have received about 800,000 USD from these sales — about the same amount that USAID invested in the development of the project design document for Los Cocos. However, Fondo Acción brokered deals between Los Cocos and two other companies before the verification occurred and the project was guaranteed to generate credits, which allowed these buyers to secure discounted prices per credit. These buyers included PRODECO, the coal company interested in offsetting its liquid fuel emissions and thereby avoiding the tax on these emissions, and, even earlier, Natural Capital Partners, a carbon broker headquartered in London that would then sell these credits on to companies around the world interested in offsetting their carbon footprints. As a result of the secrecy around the credit sale price to these companies, then, it is not clear how much these sales have actually generated, nor what percentage of these have been set aside in an insurance buffer pool to be used against the failure of these projects in the future. One leader of the BIOREDD+ team, off the record, said that he had heard that communities were being offered very low prices for their credits — 1.50 or 1.60 USD per credit. At these prices, then, would be little left, after setting $40,000 aside for the next verification, to cover the costs of other activities that the communities had been told would come with carbon credit sales.

As of late 2020, community leaders still lacked clarity on how much funding they would be receiving or how it would be disbursed. This is in part because the funds will not go directly to the communities from the buyers. Rather, Fondo Acción had been appointed by USAID as the keeper of the funds the projects generated, which they will then disperse to the community for particular projects.[25] However, it is as of yet unclear what these projects might entail, and who specifically will benefit from them. The livelihood impacts of this funding are therefore unlikely to play out until the investments made with this money have themselves been operating for some time – or at least a decade after the program started. The Chemonics program directors, Fondo

[24]The BIOREDD+ team quickly learned that they could not use the term “patrols,” which is typically the term used in REDD+ projects to describe local teams walking through the forest to make sure that no cutting against community norms was occurring. In these communities in the Pacific, this term was too tightly tied to the armed conflict, and there was concern among BIOREDD+ participant communities that reusing such a loaded term would paint this role as controversial.

[25]The arrangement for the disbursement, agreed by the communities at the start of the process, while seemingly contradictory to the ownership of the project by the community, does have one important security benefit: as community leaders in the region are regularly extorted for community funds, disbursing the funds directly from an NGO for particular projects prevents the Community Councils participating in BIOREDD+ from having a basis for extortion. This info should not be buried in this footnote.

Acción staff, and Los Cocos leaders all seem frustrated by the delays and relatively low benefits to communities from all this effort. Chemonics has primarily blamed the delays and uncertain benefits for the communities from these projects on the complexity of REDD+ and costs associated with responding to this complexity, calling out those who make, and change, the rules. Fondo Acción staff have expressed similar frustrations with the overall process of REDD+ project development, but also suggested that working within the constraints of USAID's funding and reporting requirements has itself introduced additional costs for them and for the participant communities. People in Los Cocos, meanwhile, have varied views on who is to blame. Those who are not intimately familiar with the process have suggested that the community leadership might be to blame (see Chapter 6), while the community leadership has also expressed disappointment with the process overall. The Legal Representative that had accepted the project originally had even suggested in an interview, before he passed away in 2018, that he felt "duped" by the way the project had played out.

7 Ecosystem Services

The concept of ecosystem services underpins REDD+ not only in the idea that those benefitting from climate change mitigation should pay others to take action to reduce climate change, but in the notion that reductions in deforestation will also produce local ecological goods that benefit communities participating in REDD+. Maintaining forest cover, for example, helps to maintain cooler local temperatures, reduce flood risk, and increase biodiversity and associated ecological controls on pests, and protect non-timber forest products.

Whether REDD+ achieves these benefits depends, theoretically, on whether REDD+ reduces deforestation or regenerates forests in the Los Cocos territory. Our research suggested that there was no REDD+-driven mechanism by which such deforestation reduction might occur, and interviews and surveys showed that timber harvesting had continued apace throughout the BIOREDD+ period, even as mining with heavy machinery also increased deforestation in large areas along riverbanks of Los Cocos.

Leaders of the BIOREDD+ team repeatedly made clear that they had no intention of pushing community members to actively prevent their neighbors from cutting wood, other than by holding workshops with woodcutters about the impacts of cutting. One BIOREDD+ leader explained, "It was clear that those who are cutting are not doing very well, they hardly make anything, especially if their time is calculated. And they are the worst off. But the tradition is strong. And how are you going to tell a 60 year old who has been doing this all his life that he has to switch to something different?" It is difficult to imagine, therefore, that BIOREDD+ had any significant impact on ecosystem services generally.

While biophysical measures of these changes were beyond the scope of this research, the stories we heard from people gave us some indication of the more general state of the forest. Community members who watched timber harvests float down their river lamented that they saw smaller and smaller trees passing by, even small enough to fetch a much lower price. Those depending on hardwoods for construction complained that the most useful hardwoods, common earlier in their lives, had all but disappeared. Woodcutters had to go farther and farther to get decent trees, making forays into the forest ever more expensive. We also heard of terrestrial mammals and fish that had previously been abundant as food becoming scarce. Locals attributed this to a wide range of causes, including deforestation, overfishing, and increased sediment and toxins in river water as a result of mining, and even the noise from the large speakers that locals had recently begun purchasing to enjoy music while sitting in front of their homes in the villages.

Despite these declines in biodiversity affecting the local populations, BIOREDD+ ended up focusing discursively on biodiversity much less than either the project name would have suggested, or the project proponents had originally told the community it would. One leader in Los Cocos thought this was likely to reduce the effectiveness of the program over the long term, given that biodiversity and ecosystem health meant far more for the lives of local people than carbon sequestration. “The biodiversity argument is much clearer for them because it translates directly into what they hunt and fish. Carbon means nothing to them.” As a result of the limits on changes made in land use practices associated with the program, then, it appeared that no biodiversity livelihood benefits had come of the BIOREDD+ program.

By the end of 2015, aside from the slow return of *chontaduro*, the enlarged footprint of mining in the community, and the uncertain role of coca in the wake of the FARC-government peace process, little felt different for the people of Los Cocos from the start of the project.

8 Comparison with La Hormiga

Because we were not able to develop a pre-project “baseline” assessment of livelihoods in Los Cocos due to the timing of the research to have a “before-after” comparison, we instead had to rely on a “control-intervention” methodology, comparing the livelihoods of people in La Hormiga and Los Cocos at the end of the BIOREDD+ project. As laid out in Chapter 3, these communities were similar in key ways that would make them compelling for comparing – their size, geographies, distance to major cities, historic livelihoods, and governance structures were all very similar at the start of REDD+. The BIOREDD+ program team had hoped to incorporate La Hormiga into the program as a result of these characteristics, just as they had Los Cocos, but La Hormiga eventually declined to participate. Our qualitative ethnographic research showed how these similarities on paper fail to capture important differences between the communities that reveal the imperfections of the “control-intervention” concept. Nonetheless, recognizing the differences between livelihoods in the communities at the close of the project was important for us to understand precisely how the two rivers have diverged over time, and dig into the reasons for these divergences, be they related to BIOREDD+, previous conservation and development projects, armed conflict, coca growing, gold mining, leadership strengths and weaknesses, or, as we found to often be the case, some cocktail of these. I delve into the place of community and territorial governance within this mix of influences in Chapter 6; this section, comparing livelihoods in Los Cocos and La Hormiga at the end of the project, therefore sets the stage for that analysis.

Table 5.1. Livelihood comparisons, Los Cocos and La Hormiga

	Los Cocos (BIOREDD+ Participant)			**La Hormiga (BIOREDD+ Non-Participant)**			**Comparison**	
Livelihood	*% HH Participating*	*Subsistence Value*	*Average annual income (among those producing/ selling/receiving/ working)*	*% HH Participating*	*Subsistence value*	*Average annual income (among those producing/ selling/receiving/ working)*	*Difference in % of HHs participating in Los Cocos vs. La Hormiga*	*Average annual income from livelihood in Los Cocos as percentage of that earned through the livelihood in La Hormiga*
Woodcutting for Market*	45%	51% of woodcutters use wood they cut for construction; 61% use it for firewood	1,508,475 COP (464 USD)	31%	44% of woodcutters use wood they cut for construction; 53% use it for firewood	4,100,000 COP (1261 USD)	14%	-171.80%
Mining**	2%	NA	1,400,000 COP (431 USD)	47%	NA	2,077,777 COP (639 USD)	-45%	-48.41%
Agriculture	91%	75% of HHs surveyed ate at least one meal from their produce over the prior week	468,000 COP (144 USD)	91%	72% of HHs surveyed ate at least one meal from their produce over the prior week	554,000 COP (170 USD)	0%	-18.38%

Fishing	54%	86% of fisher HHs ate fish they had caught in the last week	1,692,000 COP (564 USD)	28%	100% of fisher households ate fish in the last week	712,500 COP (238 USD)	26%	57.89%
Hunting	25%	Not assessed	744,000 COP (229 USD)	21%	Not assessed	438,000 COP (135 USD)	4%	41.13%
Animals Raised	37% of households raised some animals for food *Chickens: 23% *Hens: 32% *Ducks: 10% *Pigs: 5% *Fish: 0	56% of HHs raising animals had one meal or more of their products in the last week	225,000 COP (69 USD)	47% of households raised some animals for food *Chickens: 26% *Hens: 41% *Ducks: 3% *Pigs: 1% *Fish: 1%	65% of HHs raising animals had one meal or more of their products in the last week	396,000 COP (122 USD)	-9%	-76.00%
Liquor Sales	30% (19% sold fermented cane juice - *guarapo*; 27% sold cane liquor - *viche*)	Not assessed	304,000 COP (94 USD)	29% (23% sold fermented cane juice- *guarapo*; 14% sold cane liquor - *viche*)	Not assessed	420,000 COP (129 USD)	1%	-38.16%
Artisan Products (made of local materials)	12% of HHs created crafts from local products	Not assessed	211,000 COP (65 USD)	26% of HHs created crafts from local products	Not assessed	268,000 COP (82 USD)	-14%	-27.01%

Informal Employment	9% of HHs had one or more household members employed informally	NA	3,530,000 COP (1,086 USD)	22% of HHs had one or more household members employed informally	NA	2,505,000 COP (771 USD)	-13%	29.04%
Formal Employment	19% of HHs had one or more members employed formally****	NA	5,158,000 COP (1,587 USD)	21% of HHs had one or more members employed formally	NA	6,506,625 COP (2,002 USD)	-2%	-26.15%
Remittances	8% of HHs receive remittances	NA	195,000 COP (60 USD)	29% of HHs receive remittances	NA	244,000 COP (75 USD)	-21%	-25.13%

The data for this table came from household surveys carried out in La Hormiga and Los Cocos between October 2016 and March 2017. The households were selected from three matched villages in each river community in a random public drawing. Trained local enumerators carried out the surveys.

*One Los Cocos village that depends primarily on woodcutting was left out of the survey village pool, skewing Los Cocos' numbers downward for dependence on woodcutting. This decision to not include that village was the result of an attempt to match like villages in the survey populations. This particular village in Los Cocos is unique in its physical isolation from the rest of the community, being located in a separate, shorter river that runs between Los Cocos and La Hormiga but is technically part of the Los Cocos Community Council. There was no equivalent village in La Hormiga.

**Mining in Los Cocos was halted in the year before the survey was conducted, as the backhoes had broken down, meaning that there was not an opportunity for people to pan in the holes left behind by the machines. Incomes from mining have been very lumpy for community members of Los Cocos generally. In La Hormiga, mining is also somewhat seasonal as it depends on having minimal rain. As a result, in some years, people are able to mine much more than others, and mining income, already uncertain, becomes even lumpier as a result. Since we asked about income made in the previous month from mining, it is difficult to know how well that translates across every month of the year. Here we have simply multiplied the income given for the prior month by 12. Some years they are likely to make much more, some years much less.

***Income is taken as the money made through sales of the items. I do not attempt to account for the subsistence substitution value of the items in these numbers.

****Some of those who responded that they had "formal employment" were referring to their contracts with the BIOREDD+ project, though this level of specificity was not asked for in the survey and thus not captured. These jobs, often temporary, included work such as filling out a survey, providing transportation (by boat) to outside technicians, or leading meetings with community members about cutting trees.

9 Livelihoods and income

The household surveys we carried out (see Chapter 1 for methods) revealed that there were both many similarities between the livelihoods that predominated in Los Cocos and La Hormiga, as well as a few contrasts, by the end of BIOREDD+ (see Table 5.1).

The same percentages of people relied on agriculture in both communities for their meals and for their incomes, though average income from sales of agricultural products was higher in La Hormiga than Los Cocos. This seems to suggest that the BIOREDD+ effort to increase incomes from agriculture – cacao and Chontaduro in particular – had, at best, borne little fruit by the time of the survey, over a year after the project's conclusion.

The products cultivated varied between the rivers. In Los Cocos, for example, about triple the number of people had planted cacao than in La Hormiga – not surprising given the BIOREDD+ project (the cacao planted in La Hormiga was used more for local consumption of the pulp, rather than for selling the beans). Los Cocos also has *borojo* from a development project of the past that the people of La Hormiga did not benefit from. In La Hormiga, some 92% of households had taro planted, while this was just 69% in Los Cocos. More cane was planted in Los Cocos, feeding the *viche* liquor manufacturing for which the river was known, though, interestingly, sales from alcohol were higher in La Hormiga. This was likely because some of the people entirely dedicated to the *viche* trade slipped through our survey selection, and because the women of La Hormiga make a drink that sells well locally: *guarapo*, or fermented cane juice. The people of La Hormiga made, on average, 76% more annually from sales of animals they had raised and their products (offspring and eggs, primarily). This may have been, in part, due to a PCN project that had come into La Hormiga at the same time that BIOREDD+ was leaving Los Cocos, that provided hens, among other livestock. While the project had also been approved in Los Cocos, it was much slower getting off the ground there and had not been implemented by the time of the surveys.

Nearly double the households surveyed in Los Cocos depended on fishing for both their food and income than the number in La Hormiga. This was not a surprise given that there are two large fishing villages along the coast in Los Cocos, one of which includes the fish house with ice that USAID built, and we conducted surveys in the larger of them. There had been two fishing villages in La Hormiga. The one closest to the sea was deserted when paramilitaries gruesomely massacred seven residents on April 27, 2001 in the middle of the night. The neighboring fishing village rapidly depopulated as well, as the trauma of the massacre was compounded by living for several years under the strain of a drug trafficker using their local fish collection center to launder his money and goods. There were only a few dozen people left behind during our visits between 2016 and 2017. Under a different USAID project, a new fish center was built with an ice machine so that fishers from the village did not have to go to the neighboring river or the city to get ice for their expeditions, with the hope this would bring some people who had moved to the city back to their village. The intended affect had not yet been realized by 2018, with the ice machine experiencing repeated technical difficulties

Also interesting to note is the greater number of people engaged in making crafts, furniture, and boats out of local products – while 26% of households were engaged in this in La Hormiga, only 12% took part in Los Cocos, and the people of La Hormiga who took part in these activities made 27% more on average annually from these trades than those who took part in Los Cocos. Retaining these local practices and products had been a point of pride and emphasis for leaders in La Hormiga, and it seemed, at least to some extent, to be working.

Finally, one other interesting point of comparison is that 21% more households in La Hormiga received some remittances than households in Los Cocos. While few households receive significant income in remittances, this may reflect what we heard in interviews to be a closer connection between the people of Los Cocos and the urban areas of Buenaventura and Cali: working-aged people who grew up in Los Cocos may more often bring the older family members to whom they would otherwise send remittances to the city to live with them. An analysis of the age of individuals in households in surveys also supports this finding. While in both rivers 83% of the population on the households surveyed was 30 years old or younger, in Los Cocos there was not a single household member listed in our surveys who was greater than 60, while about 3.5% of individuals in households surveyed in La Hormiga were over age 60 (some 27 people in total). This loss of older populations to the city in Los Cocos may have also contributed to some of the weakening of certain traditions in the river as described elsewhere in this chapter.

The sections that follow detail some of the comparisons between communities in the livelihoods that were either of greater focus in the BIOREDD+ project, or which are predicted in REDD+ literature to have a significant impact on forest cover.

9.1 Timber harvesting

We found that cutting wood for commercial use in the river was more widespread among households in Los Cocos than in La Hormiga, despite the fact that La Hormiga had a local timber mill into 2017 and Los Cocos did not (see Figure 5.2). Our surveys indicated that a higher percentage of the woodcutters in La Hormiga cut more often and made higher income from their efforts (See Figure 5.3). However, our matched survey villages did not include a village on a distinct river that is also considered part of the Los Cocos territory, where local people are almost entirely dependent on woodcutting. Had we accounted for this community in our survey, it is likely that Los Cocos would have had not only a higher percentage of households dedicated to cutting wood in the community, but also a greater percentage of households dedicated to it as their primary activity, engaged in more cutting annually and receiving a greater income from it. There was no equivalent similar village in La Hormiga. There is also an additional "camping site" in Los Cocos near the ocean that is made up of people from Buenaventura who come into the river to cut mangrove. We were advised against conducting interviews or surveys with them as some community leaders had been threatened by individuals from this community when they attempted to .

That Los Cocos would have somewhat more people and more dependence on cutting wood makes sense from a geographical perspective historically, as the Los Cocos territory offers more land area from which one can transport wood downriver. In La Hormiga, only cutting from the middle of the populated section of the river toward the sea allows woodcutters to transport their haul, while in Los Cocos, people cut in the tributaries above the village located highest on the river and are still able to transport the wood to intermediaries downriver, or, less commonly, to bring the wood all the way to Buenaventura.[26]

[26] Bringing the wood directly to Buenaventura allows the woodcutters to fetch a better price for their wood, but they are also at risk of being stopped by the Coast Guard or local environmental agency for not having a license for the wood. If they do not have a license, they can be fined and have their wood confiscated. The intermediaries are able to launder the wood from the rivers more effectively, by obtaining licenses from other regions of the country and suggesting to the authorities that the wood they are bringing in comes from those regions rather than the local rivers.

Figure 5.2. Regularity of commercial woodcutting in surveyed households: percentage of woodcutters who have cut wood a given number of times in the last 12 months.

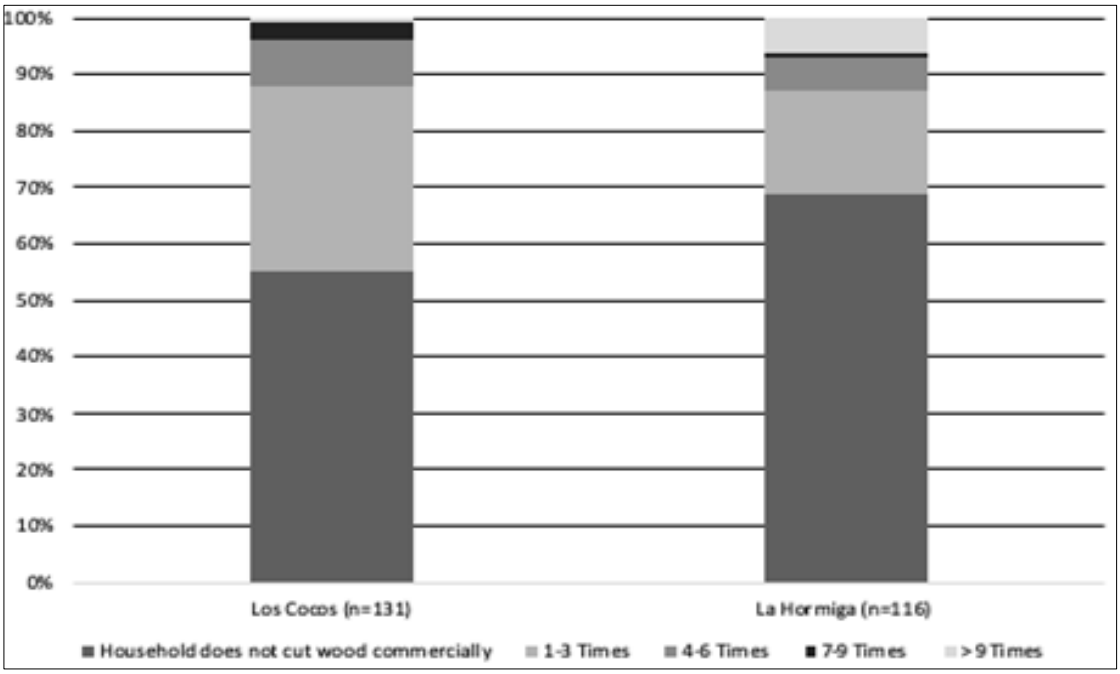
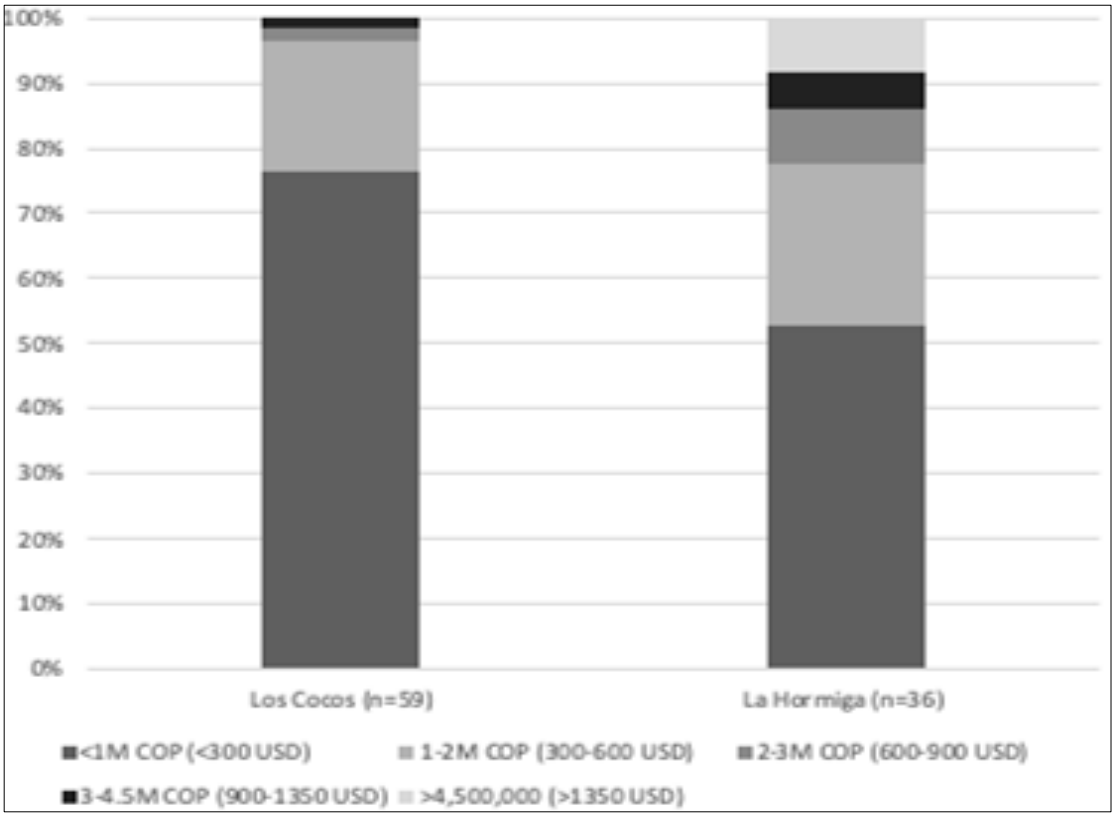


Figure 5.3. Annual income from woodcutting: % of woodcutters who earned a given range over the previous 12 months.



In recent years, the geography of the river has been less determinant of where people can and cannot cut as a result of the entry of chainsaws. Rather than cutting the trunks into 3 meter long *trozas* (see Figure 5.4), the chainsaw, which people say came into the rivers around 2006, allowed people to cut the wood into smaller "blocks" (see Figure 5.5), which meant they could cut up smaller trees and be able to cut year-round, not depending on the rains to carry their haul of *trozas* off the hillside and downriver. The blocks could also be carried in a boat or dragged behind a boat in more complex river courses than the larger sausage trains of *trozas* could navigate. Not everyone had access to a chainsaw, but they could rent them or pay for someone with a chainsaw to come and cut up the wood. Even though people still cut the trees down with an axe, the chainsaw had still had a significant effect on the amount of wood that could be taken out and the trees that could be cut – smaller trees that could make fine blocks would never have been accepted, or would have fetched a much lower price, as sausages. As a result, the "selective harvests" that had been common among woodcutters of the past, selecting only the biggest and finest trees on a given plot, were no longer necessary, and much greater numbers of trees were likely to be cleared from a given piece of land. These results were tempered somewhat by the much lower prices that chainsaw-cut wood fetched in Buenaventura. If not perfectly cut, the chainsaw cut wood receives only half the price that well-preserved sausages or sawmill cut wood gets.

Figure 5.4. Three-meter roundwood, known as *trozas* in "sausage" formation, to be pulled to Buenaventura.

Figure 5.5. Wood that has been cut by chainsaws into "blocks." These fetch a lower price, but are easier to get out of the forest and manage.

In both rivers, we heard about the challenges of the trade. These included generally unpleasant and physically arduous working conditions, long stretches in the woods away from family, potential for the work to be ruined by a spell of weather that did not permit the woodcutters to get the wood out fast enough, dependence on and debt to others who finance these excursions, and risk of death from any number of threats, such as deadly snakes, trunks or branches falling onto you as you are cutting, axe or chainsaw accidents, or getting run over by a "bomb" of logs all rushing down a creek bed as you try to guide them into the river. In the five years since we began going to the rivers, we met four people who had or have been seriously wounded in the trade, and heard of three others killed in it. After months of work, people could come out of the forest no better off, or sometimes even worse off, than they had gone in, indebted and forced to go out again soon. In both Los Cocos and La Hormiga we encountered three men who on separate occasions told us they had cut wood once or twice and quickly decided it was not for them, deciding instead to invest more in agriculture, fishing, or owning a store.

Given these risks and costs, why were so many people across both rivers interested in this trade? For one, when things went well, it could yield a few hundred dollars for woodcutters, which was not insignificant in a world with few other income sources. For some, it was the only way they saw to stay in the river and make any living at all. Some attributed it to custom as well – men were taught by their fathers to cut, and it had been both more respectable and more lucrative work in the past. As another leader from La Hormiga said, "People need something to do. They aren't just going to sit on their hands." The range of intensity of cutting came through in both our surveys and interviews as well: while some people dedicated themselves full-time to cutting, always preparing the next area for cutting even when the weather was not apt for the cutting itself, many others simply cut once or twice a year when they wanted some extra cash for a particular purpose. One Los Cocos resident put it this way: "I am a woodcutter, but in stints. To give you an example, I have 100,000 pesos and I want to buy a television, but right now I don't have a way to get the other 100,000 pesos, so I go to cut ten *trozas* (3 meter sections of tree trunks). It works like that, but there are others that live from woodcutting."

Leaders in both communities, however, were concerned by the pace of timber extraction in their rivers, if only because they felt it would undermine their future livelihoods to over-harvest now. One leader from Los Cocos noted that it was during a past conservation project, when they had really assessed the state of the forest, that they had realized how few large trees were left. There was a sense that even with a few more people specializing in cutting wood, rather than rotating through various livelihoods regularly according to the cycles of the moon as they had done in the past – fishing, agriculture, cutting –, that forest loss was accelerating, even as it got continuously harder to make a good living from it.

9.2 Agriculture and coca

While the harvest of trees for commercial sale was the principal focus of the BIOREDD+ discussions about deforestation, there were other sources of deforestation in the communities as well. Agriculture, often referenced as a source of deforestation in the REDD+ literature, was not principal among them (see Figure 5 g for a sampling of the most important subsistence crops). Most decent agricultural land in both rivers had long before been claimed and put to use in a shifting cultivation method whereby one individual had multiple plots of land through which they would rotate, letting the land rest for a period of 2-4 years, after which they would chop

down the vegetation on the rested soil and let it serve as mulch on new plants. There were no livestock in the communities, save for a few chickens and pigs roaming wild, so forests were not cleared for pasture. With the population of the rivers shrinking, there was no need for additional land to be cleared for agriculture.

Figure 5.6. Banana, peach palm (*chontaduro),* and taro (*papa china)* are all core to subsistence livelihoods in both Los Cocos and La Hormiga.

Coca may have been the one primary crop that people cut trees down for as this was a common means of trying to hide the fields amidst forest. Aside from mining, the greatest difference in livelihoods between the two rivers is the cultivation of coca plants for the production of cocaine in Los Cocos – a crop that the leadership of La Hormiga has fought tooth and nail to keep out, putting their lives in danger to do so. The threat of eradication of the most lucrative crop grown in the region leads to the veil of secrecy that surrounds coca cultivation, and it is not a topic we could broach in interviews or surveys for obvious reasons. Leaders knew that coca growing was happening in the community – one even came to La Hormiga to speak about the damage that the crop's presence had done to their community – but professed not to know what percentage of people and acreage of land were dedicated to the crop.

What we did learn is that coca farming is by no means easy money. It requires a significant initial investment, a nearly constant rotation of inputs and attention – fertilizers, pesticides, and anti-fungal applications among them – and living in fear that your investments will be for naught if the crop is eradicated, or if the cocaine produced from it is intercepted by the Coast Guard or other actors before it reaches its point of sale. When the proceeds from coca farming are not all spent in Buenaventura, it likely reverberates through the river economy, but it is difficult to trace its precise impacts.

9.3 Gold mining

While many core livelihood practices are similar or identical between rivers, gold mining is not. Both river communities had their origins in the mining companies of slave-holder Pedro Augustín Valencia, each mine located in the community now at the highest village of the rivers today. Mining by locals, other than occasional panning along the riverbank, largely died out in Los Cocos. Our survey, which was completed about a year after the backhoes had ceased operations in the river (their owners returned to restart operations shortly thereafter) indicated that just 2 percent of households surveyed in Los Cocos did any mining at all, which amounted to three individuals from one village. One indicated they went into the holes the companies dug when they were operating, and two said they panned along the edge of the river. Both activities were done only occasionally.

In La Hormiga, in contrast, mining has continuously been the primary livelihood for the village closest to the mountains. A full one hundred percent of households surveyed in that village said mining was of primary importance to them as a livelihood, with most individuals participating in multiple forms of mining. A handful of people from other villages also participated in mining, either going to the top of the river to join a crew or panning in their local riverbed.

There are various reasons for the difference between Los Cocos and La Hormiga, including that there was not, according to oral history shared by three respondents in Los Cocos, as much gold to be found in Los Cocos, and that the variety of livelihood opportunities around the mining areas of Los Cocos were greater, given its access to decent agricultural lands and woodcutting (the Los Cocos river and tributaries are less steep and swift than that of La Hormiga, making it much easier to get larger boats further upriver and to transport wood from further up river). Until relatively recently in La Hormiga, the mining techniques used were unmechanized, and included women diving with rocks tied to their backs to pull up sediment for sifting. Over the last thirty years, pump motors used in pits with large teams, and small floating dredges operated by smaller teams have replaced these earlier practices (see photos). In Los Cocos, mining was revived in 2012 through the entry of outsiders using excavators. These machines are not owned by local people, but they have become a common sight on rivers of the Pacific over the last several decades. In the case of Los Cocos, two different companies have been mining the river. One had struck a semblance of a deal with the community to do so, offering 10% of earnings to the land owner, and 6% to the Community Council, which would be overseen by a committee designated to direct these funds toward infrastructure investments that community members asked for, such as church improvements. The other company working in the river came in without any official permission from the community, and it seemed from some questions about this that people had resigned themselves to stop resisting in the wake of the death of the Community Council President in 2011 for her opposition to the first forays of mining companies into the river. Almost all the profits leave the communities, but community members are allowed to bring their pans to some of the pits to sift through what the excavator has left behind – with some caveats. Panners explained in interviews, for example, that when they were finding more gold in their searches, the company would clear them from the pit and prevent them from coming back in. The presence of the panners clearly had value for the mining company for finding pockets of more gold.

In La Hormiga, just as in many other rivers of the region, these companies had also attempted to enter with an excavator and begin mining in the tributaries of the river without being noticed. They could not get far. According to interviews, on one such occasion, the excavator had not

been in the river a day before the Community Council leadership in La Hormiga heard about it and pulled organized several boatloads of people to go to speak with the excavator operator and demand that he depart, having violated explicit community rules against mining with heavy machinery. As with many leadership practices in La Hormiga (see Chapter 6 for more), the deliberate tactic of overwhelming armed actors with the sheer number of vocal leaders all willing to stand up for the decisions agreed in community served to keep these influences out where other communities, like Los Cocos, had not.

It is possible that the differences in mining practices have also contributed to the difference in mentalities about work being a collective or individual endeavor, as described above. In La Hormiga, mining is led by local people, and has to be done in teams. One form of mining, *timbo*, requires a critical mass of people, greater than a dozen, to carry out, as people literally throw pans of sediment via human chains up and out of a pit to be sifted through a sluice box (see Figure 5h). The other common form used today, *draga*, or dredging, involved smaller teams of around five miners working on a floating dredge machine to suck up the sediment from the riverbed and run it through a sluice box. One team member is scuba diving underwater, connected to an air tube fed by a compressor, to manage the underwater vacuum hose, while another is managing the sediment coming into the sluice, a third is seeing to the engines, and a fourth is assessing the safety of the scuba diver. The fifth is cooking food on shore, and the team rotates through positions over the course of the day.

In contrast, in the excavator-dug pits of Los Cocos, miners come as individuals, pan as individuals, and live or die as individuals in these dangerous pits. According to two people who participated in this, there is no teamwork in this effort, only competition to unearth the remaining dregs of gold. There were a few initial periods of relative prosperity resulting from these pits. While we heard that some men spent their earnings at the bar that the owner of the mining "company" had established on the edge of the pits, others, including the women working in the mines, invested in material upgrades – new curtains or furniture, a new generator, or a new outboard motor for their boat. These earnings were very inconsistent though, and the risky work was therefore a gamble for the dozens of Los Cocos residents who ventured into the pits.

Figure 5.7. Mining in Los Cocos with excavators starts with clearing the land of vegetation (left), and then digging pits from which to pull and wash sediments. These are the pits that community members pan in while they are being dug out by the excavator, and water is being removed from them by a motor pump.

Gold mining in Los Cocos with backhoes led to the deforestation of about 200 hectares of forested land along the river between 2012 and 2018. BIOREDD+ declined to focus on mining

as a deforestation issue in this context, given the sensitivity and risks of asking community members to attempt to control it. There was some deforestation as a result of *timbo* mining in La Hormiga, but this was limited to areas within a few hundred feet of the riverbank.

9.4 Viche

While we were offered little view of the precise role of coca in the matrix of livelihoods in Los Cocos, the production of *viche*, a supremely strong cane liquor, was much more in the open. Women would sit by the river tending their distilling fires for many hours at a time every few weeks, after harvesting, pressing, and fermenting their cane. This was not always the case. For much of the twentieth century this activity was outlawed, along with the production and consumption of all artisanal distilled beverages, forcing these women to hide their distillation setups deep in the woods along the tributaries of the river to avoid the *teniente* (lieutenant) until the early 1980s.

It is unclear why women in some rivers, such as Los Cocos, have taken up the distillation process with such fervor, while those in others, including La Hormiga, have not. One reason may be the long history of prohibition. Another may be because of the social cost of this strong liquor if abused, meaning that women must be able to have total control over their processing and sales, keeping men who will drink their product at bay. Selling *viche* to people in their own community could, quite literally, be a headache for everyone. Yet, as one leader in La Hormiga noted, they are buying it anyway from other rivers – why not create an internal industry? The liquor is also used for medicinal purposes, as healers put together special "bottles" filled with medicinal plants and *viche* to cure specific illnesses. As women are the primary producers of cane, and primary producers of its derivatives, with men the primary buyers, liquor and other sugarcane products are all an important source of income for women, giving them independence to use money to support their families. This is a mixed blessing, according to a female leader we interviewed in La Hormiga, who was frustrated by the fact that women also often were the victims of men drinking too much, and therefore described liquor as a double-edged sword for the women.

Though growing sugar care might not displace much forest today, the production of fermented cane juice (*guarapo*) and *viche* did take a toll. About 90% of the communities still used wood for their primary cooking fuel source, unable to afford costly gas. The production of cane juice and liquors required tending a fire for hours on end, using significant quantities of wood in the process (see Figure 5.8).[27] Given falling populations, this pressure on the forest from cooking had subsided somewhat, but it was still the second greatest source of deforestation in the communities according to a survey of wood use undertaken by BIOREDD+. BIOREDD+ did not focus specifically on the use of trees for firewood, however.

[27]A year after BIOREDD+ had ended, another small project coordinated by two NGOs came to Los Cocos with the idea of helping them to shift to more efficient stoves for the distillation of *viche* in particular, as a conservation measure. It is unclear whether they were able to design a stove that matched the needs of the women.

Figure 5.8. Cane liquor distillation requires women to tend a fire for over a dozen hours.

10 Livelihood challenges and changes

We heard in our interviews and saw in our survey results in both communities the challenges that people faced to sustain themselves through subsistence crop production, while generating some additional income that could give them flexibility in an emergency, allow them to buy critical goods, and travel into the city on occasion. While a mix of subsistence farming and fishing, and exchange of foods with friends and neighbors, could meet a persons' basic needs for most of their lives, there was no cushion for something to go wrong, and no pension in old age to continue sustaining oneself when these physically demanding jobs became much harder.

Young people in the rivers, seeing these challenges, were often making the decision to leave, and the effect of these departures and de-population on the lives of those left behind came up frequently in our interviews. Schooling was one important force shaping this migration. Having schooling through high school available in the rivers, something the previous generation could not take for granted, was a great benefit to young people. Yet the schooling and its external orientation were a mixed blessing for the community. The teachers, both men and women were, save for in one village in La Hormiga, mostly from outside of the river. They lived in a house separate from the rest of the community, socialized separately, left for a week or more each month, and tried to give the students skills that would, theoretically, mostly serve them in lives beyond the rivers. The leaders of La Hormiga worked particularly hard with the teachers to integrate local values, traditions, and livelihoods into the curriculum at the schools, but it was a constant challenge, especially with teachers changing frequently and the challenge of covering just the very basic curriculum, given regular strikes, logistical and funding complications, and the time off required for celebration of a lengthy list of Saints within the rivers.

In both rivers, very few students who made it through high school there were likely to go on to college or to find a decently paid job in the city. Far more often, young people have left these rivers with hopes of going into higher education, but the costs of city life trapped them into all-consuming, low-paid jobs, like working as a live-in maid/nanny or cook, or risky and low-paid jobs, like unloading wood from boats coming in from the rivers. It is hard for many to escape this vicious cycle, and most can barely meet their own living expenses there, let alone set aside funds to send back to their parents. "Many women from here have wanted to study, but economic

problems haven't allowed them to. If we have to pay for the semester outside, we don't have a place to stay in the city or any money for transport. We end up stuck...Cooking is a job that doesn't allow us to get ahead...It requires that people be there every day. The majority of people leave from this village, from the river, and start work in a kitchen...We go supposedly to get what we want, but cooking doesn't allow us to." Some young people from La Hormiga we spoke with had returned home after experiencing the indignity of these jobs, excited to have, at least, independence and peace. "I'm one of the girls that has graduated from high school and I always said to my mom, 'I don't want to go to Buenaventura, Cali, Bogota to work in a kitchen. I want to be a professional and if I am not going to a city to be a professional then better I not go.'" A few of these individuals worked in the local school as music and art teachers. Hoping to give local people continued opportunities to expand their knowledge and skills from within the river, leaders in La Hormiga were also looking into bringing a university to the river, so that students could continue their studies there instead of having to leave home at that age.

While migration from the rivers had long been a common response to better economic opportunity elsewhere, it had also become a cultural desire even as economic opportunities narrowed with the mass influx of people around the country to urban areas in response to rural violence. A leader in La Hormiga mentioned to us how she loved having migrants return each Christmas from the city to revitalize the villages but lamented when they wore new clothes or "put on airs" of greater sophistication, without sharing all that they had sacrificed in order to obtain these new things. This became a motivator for some to leave, according to one young woman of La Hormiga: "They go for 'luxury,' saying 'I want to put on pants, shoes that are fashionable.' We study so that we can after have these pants, these shoes." The leaders agreed there was great appeal among youth to be able to buy new things and fit into urban culture, particularly given that there was a well-established history of those living in the city looking down upon those coming from the rivers, even applying derogatory names to them. It was a stigma that La Hormiga's leaders tried to push back on at every turn. Leaders hoped that the arrival of satellite internet to the communities around 2014 would help bring the world to the river and reduce the desire among young people to leave. But Facebook and YouTube, the preferred social media platforms of young people, seemed to exacerbate their doubts and frustrations about their inability to fit in and find work outside the river.

Some young adults still accompany their parents to tend their families' crops, but we found that there was resistance, or at best disinterest, among a segment of youth in both rivers to doing the work of their parents and ancestors. In one village in Los Cocos, a group of young men told us that, while they were proud of the uniqueness of their community, they would never want to show themselves working in the fields on Facebook. A youth leader in La Hormiga explained the situation in an interview: "At some point not too long in the past, the youth stopped showing interest or giving importance to the practices that we realize here; we no longer want to go to the fields to work; we no longer want to do what our parents did...I think we shouldn't disparage the activities with which our parents have supported themselves. If my father goes to plant taro, I have to plant taro – not in the same rhythm as him, perhaps - I should also have other goals and not simply stay there planting taro - but nor should we insult the work that others have done….But, yes, it has become a problem because this means that the tradition is being lost and some crops aren't grown any longer." Some blamed the larger narco economy of the region for this change in young people. One leader explained, "If you can make easy money, you are not going to go to plant to wait eight or ten years to harvest...so we could say that narcotrafficking and armed actors have also contributed greatly to the youth leaving subsistence activities."

Teachers in a nearby river where coca cultivation and cocaine production dominated the local economy concurred with this assessment of the distorting effect of the narcoeconomy, sharing that they could not get kids to come to school after they started making money working in the coca fields around age ten.

Not only had older people lost their youth support in the fields, however, but those still working subsistence crops were struggling to make their land and labor investments go as far as they used to. People in both Los Cocos and La Hormiga complained that the soil was "tired," and that crops used to be much more robust. Plantains would no longer grow in places they used to and yields of most crops were smaller than before. Talking about the era of her parents' youth, one woman from Los Cocos told us, "The ground wasn't tired then...it produced large plants. In that era there weren't diseases of anything." In contrast, disease had brought the collapse of the *chontaduro* around 2011. One woman in La Hormiga explained that beetles were making holes in the palm and coring them out, causing them to fall over. When they had been producing well, they were an important source of income: "We sold the *chontaduro* clusters because buyers came in from outside and bought them from us directly. Back then the *chontaduro* provided income to the people. It's not that it gave us a lot, but it was enough to eat some bread. Sometimes I'd tell the buyers, 'Bring me whatever – soap, rice,' and they'd bring it...they didn't charge a fee for the transport because I was selling to them...I think it was from there that things have gone bad, because all that depended on the *chontaduro*." Lower soil productivity and disease were compounded by more inconsistent seasons. Everyone who had been planting for any number of years shared that the weather had become "crazy" with heavy rains and flooding occurring in periods that used to be sunny and dry, and vice versa. This had made planting corn, a key staple crop that was mass planted once during the year, then dried and used for dozens of dishes throughout the year, particularly challenging. Floods washed out corn on the cusp of ripeness two years in a row, exacerbating an already precarious food situation in both rivers.

Even as returns to subsistence agricultural investments were falling, opportunities to make money in the rivers through other avenues were also in decline. The wood industries that had come to the river to purchase products directly from community members were outlawed in the 1980s. While the presence of armed actors in the territory had brought stress, terror, and grief to the rivers, it had also brought a new economy that disappeared in 2013 with the retreat of the FARC. Over their fifteen years coming and going through the rivers, the army and FARC had needed to resupply their goods from local stores, while the FARC hired local people to transport goods for them – a high risk-high reward job for the right person. In Los Cocos, the FARC were also a consistent buyer for the coca leaves grown locally.

The paramilitary gang control of Buenaventura that started in the late 2000s further limited livelihood options, as community members could not sell their produce freely there – or even transport it through there – without paying a hefty tax. Undertaking any business in the city could put community members on the wrong side of one of the rival gangs and cost them their lives. Dozens of people from each river had died as a result of these conflicts, some killed in the rivers, and others in Buenaventura.

10.1 Group work

As alluded to above, one interesting contrast between the two rivers was the role of group work in them. People we interviewed in both communities noted that group work, *la mano cambiada*, had been very common in the past. Small groups of families would come together, weeding or planting one group member's farm one day, another the next, and so on. It was a more fun and

quick way of working, people said. By the time we got to the rivers, this tradition had largely died out in Los Cocos. Interviewees noted it was still used among close friends to complete projects that would be impossible for an individual to do, such as building a home, but that people had largely shifted into paying *peones*, young day laboring men from local villages, to help them on their farms, rather than joining forces with others. Various young people we encountered in Los Cocos noted that they would not work for their neighbors without being paid.

In La Hormiga, however, older family members would still help each other out on their farms, and residents formed other spontaneous "work parties" or *mingas* to accomplish other livelihood activities. For example, one morning when I was living in La Hormiga, I was eating a breakfast of eggs and boiled taro when I was rounded up by calls to participate in a collective fishing party being organized by a group of men from the village. Apparently, the tradition goes that the event must be as spontaneous and unplanned as possible, lest the fish get word of it and bring the rains to ruin it. This event involved a lead set of canoes stretching out a net across the river followed by another series of canoes and people swimming 50 meters behind with another net, making a tremendous racket – singing, clapping, splashing – to scare the fish into the first net, and then close the nets in around them. The process includes the construction of a small "house" of sticks for the fish to swim into as an escape from the noise, which then becomes the center of the enclosure There were about eighty of us participating that day and we managed to catch about one hundred fish between us, dividing them up on a beach at the end. Similarly, a desire to build a new hut for community members to sit in on the village green led to the spontaneous agglomeration of a group of ten of us heading upriver to cut the necessary wood and haul it back to town, a task we completed in the course of a morning. The entirety of the La Hormiga towns came out for biannual cemetery cleaning and festivals.

This collaboration for common ends contrasted starkly with a moment the second General Assembly meeting I attended in Los Cocos. The meeting had to be held in the local elementary school because the building that had been built a few years earlier for the governing body of the community had fallen into disrepair to the point of being unusable. At the start of the Assembly, the President of the Community Council's Governing Board asked the Assembly to reflect on what this symbolized.

The single women of Los Cocos, perhaps not having the luxury of employing help, seemed more inclined, still, to group work and coordination (see Figure 5.9). In one town at the head of the river, the women, whose income depended on river shrimp harvests and sales, coordinated together to halt their harvests when they noticed the shrimp had eggs, or whenever populations seemed to have fallen off a bit. The women who harvested shellfish from the mangrove mudflats downriver had devised a similar seasonal *veda* to keep the population base of their livelihood strong. Their greatest challenge was to prevent deforestation of the mangroves and to keep women from other communities from entering the mouth of their river to use their resource.

Figure 5.9. Women of Los Cocos have organized rest seasons for shrimp trapping (left) and shellfish harvesting (right) to maintain a healthy resource base.

11 Projects

People in both rivers agreed on one major point about livelihoods: that they needed more sources of income, particularly if they were to get young people to stay in the river. Interestingly, interviewees used the word "project" to describe in general terms this source of income. At the end of every interview, we asked what they hoped to see in the future in their communities, and people consistently mentioned *projects*, though few could name a particular project that they thought might work for the community. When a group of a dozen men in La Hormiga calling themselves "Better Living," several of them regular woodcutters, threatened to plant coca in order to have *something* to subsist on, they called on community leaders to provide *projects* as an alternative.

Community leaders had various conjectures as to the source of this common refrain. One supposed that these projects had had unintended consequences of making people think that those from the outside were required to generate income and well-being. She lamented how these people assumed that they needed money more than the things that they might be giving up for this money, such as security or the health of the river. Others thought that a project was anything that brought some type of capital that could bring benefits to multiple community members. In most interviews, people framed projects, when they brought them up as something they hoped to see, as *alternatives* or *solutions* to an undesirable current state of affairs – particularly coca growing, woodcutting, or emigration from the river.

While community members who proclaimed that they wanted projects were not entirely clear what these might look like, they seemed more clear that the projects should look different to those brought in most recently. The enterprises they pointed to seemed to have a few things in common: they should rely mostly on skills and capital that people already had, such as growing

taro or plantains. This would be enterprises that would be complementary to subsistence production, rather than requiring people to abandon their subsistence work, or learn complex new skill sets or modes of working. They should not force people to collaborate or coordinate across large groups to make it work. They would be efforts that could be self-sustaining, rather than fading out after a few weeks, months, or, at best, years.

Like most efforts to add value to products in the rural tropics, these were easier said than done in a place without electricity, and where all machinery breaks down in the constant heat and humidity. Nonetheless, with Colombia's largest port just downstream, leaders held out hope that they might be able to tap into export markets that could skirt the local mafias and yield better incomes.

Where had the BIOREDD+ project landed Los Cocos in relation to its neighbor, La Hormiga, then? Los Cocos appeared to have similar or higher amounts of woodcutting among the local population, as well as the challenge of outsiders coming in to cut wood – particularly from mangroves – that didn't affect La Hormiga to the same extent. The agricultural projects did not appear to have generated any additional income for the people of Los Cocos, who made less on average in agricultural income than those from La Hormiga even though the cocoa planting, and the agricultural projects of the past there, had been aimed specifically at generating income rather than subsistence.

At a more general level, the communities were therefore facing many of the same challenges, none of which the BIOREDD+ project seemed to have affected much, for better or worse. They struggled to retain young people, who, as one La Hormiga leader put it "did not see the incredible value in what was around them." A Los Cocos leader suggested that nobody in his river had, or had ever had, much in the way of material wants, just new material needs to keep up with the rest of the world, and that this was not only causing migration, but injecting money into relationships and practices in a way that made life even harder and broke down community ties – a theme that will come up again in Chapter 7.

Leaders and older people across all the villages hoped to confront this challenge, common for small towns around the world, with "projects" that could keep people there. While people had some initial ideas about what sorts of projects might work, few had worked them through fully to a business idea, and nobody in the river had the capital to support them. The leadership of La Hormiga worked in a participatory way to identify what projects might have success and launched a Kickstarter campaign to raise capital to support these ideas. The leadership and people of Los Cocos mostly appeared to be waiting for outside donors like USAID to support something that might work – and came up short yet again with the BIOREDD+ project. These differences in approaches between the leadership of these rivers to these challenges, and the role that development and conservation projects like BIOREDD+ have had in shaping this divergence will be addressed in Chapter 7.

The need that leaders saw to keep people in the rivers – and the challenge of limiting their wood harvests as a result – also came out of a desire to protect their territories. As one leader put it, "Our young people may not see the value in what we have here, but there are plenty of people outside who do, and who are ready to take advantage of it." This was the primary tension that the communities faced, then, and already they had reacted differently to it, given different results between the rivers in gold mining with heavy machinery and coca cultivation.

12 Reflections on livelihood impacts BIOREDD+-wide

Conversations with the BIOREDD+ program staff suggested that the livelihood impacts of other BIOREDD+ projects, outside of Los Cocos, did not fare much better. In fact, contractors hired to facilitate these projects shared that the situation was much worse, and much more challenging, in most of the other BIOREDD+ communities. Violence associated with interlinked narcotrafficking and the vestiges of the country's civil war was a more present and volatile force in those places; access to markets were generally more difficult; migration flows were higher; and in some cases Community Councils were much weaker or entirely beholden to armed actors. In these contexts, the "alternative livelihood" projects that BIOREDD+ attempted were all the more challenged to be taken up or benefit the community members participating in the projects. There was some variation in the livelihood activities between villages, though most were selected from a shortlist that USAID and its contractors had developed with community leaders early on in the process. As in Los Cocos, each was hamstrung by a variety of factors – among them political, economic, and technical.

Despite these poor outcomes, the director of the BIOREDD+ program for USAID's principal contractor did not seem too disappointed. He shared that he and the USAID team had insisted upon making these projects "no regrets," or "do no harm," for the communities. In other words, if the projects managed to generate carbon credits, that would be a bonus. If not, the communities would not, they believed, have lost much, or at all. If anything, they would have gained from their participation in workshops, and from the inputs they had received. They would not have been forced by anyone from the outside to stop cutting wood or depending on their other livelihoods either. As a result, they did not see the precariousness of the voluntary carbon market at the time that the project was being created as a "risk" to communities. The BIOREDD+ director for Chemonics explained his assessment of risk in the following manner:

> REDD+ is inherently very risky, when you look at that in a confined intellectual space — what's the risk, how's the price of VCUs (when we came to negotiation, 1.20 a tonne), how's the market doing, what are people saying. But then we sat down with communities and realized if you take a risk analysis from communities, it's very different, the riskiness attached to living in La Hormiga. Health, basic water and electricity, education, negotiation with local FARC, or encounters with the latest in this plethora of illegal armed groups…or to drown in a boat when they go fishing. Once we started talking to them coherently about this as an option, the feedback we got from them was: yeah, it's risky, but our general life is enormously risky anyway, you know?…Without being dismissive about the risk attached to REDD+, when we put it in context of risk associated with living in these communities and added the element of viable alternative livelihoods probably the overt perception of risk attached to REDD+ was sufficiently ameliorated by the inherent risks in the Pacific.

In other words, the project team, according to this director, followed local leaders in assessing the relative risk of these projects to people in these communities. They decided that because their everyday lives were very risky, that REDD+'s *relative* risk was low, and that layering this on top of these other risks would not add much extra burden to them. Interestingly, he also noted that "even if we just focused on income generation" as from the fishing cooperative of Los Cocos, that could be enough — that the sale of carbon credits would be icing on the cake. This, after all, would be equivalent to most other development aid projects around the world. Yet, as noted above, the financial investment, time and mental space of his team was almost entirely focused on the carbon credit "icing" they hoped would appear with enough tenacity and

money from the external project team to get through all the hoops of a REDD+ project. The fact that the associated alternative development projects, which ended up being the association that people within the community had with REDD+, had not acted as alternatives to deforesting activities neither surprised nor worried him.

A deputy director of the BIOREDD+ project for Chemonics was not quite as complacent about where the program had left the communities:

> Three years have passed and the communities don't see anything beyond a document well done…If the trend of deforestation has changed in Colombia in the BIOREDD+ zones? I don't think so. I think it hasn't changed basically because not a single peso has arrived. That's it, simple. Not a single peso has arrived focused on strengthening governance, nor on developing productive alternatives, nor to set up forest management to improve forest products, which would generate higher incomes with less exploitation.

The investments in Los Cocos' fishing cooperative, cacao and *naidi,* then, were, from the perspective of this BIOREDD+ manager, obviously far too insignificant to have achieved any changes. It was no surprise, to him, therefore, that these piddling investments had failed to date as completely as they had.

Were these failures without risk for community members as the BIOREDD+ director hoped? Even if the costs were relatively low, this assessment missed several aspects of risks for the people in Los Cocos in his evaluation. For one, the costs and risks of spending time participating in a series of meetings, and planting and caring for crops that may not bring any benefits, including substituting them for other subsistence crops - are layered atop other daily risks and costs for local people. People are not harvesting their taro, repairing their homes, or going fishing for their families in the time they are devoting to these alternatives, which has immediate and potentially long-term costs for them and their families.

The BIOREDD+ team did not force anyone to participate in these projects, but nor did they ever present a clear cost-benefit laid out for the community members of participating. Rather, all the BIOREDD+ project team members emphasized the upside — necessary to get the community to accept a project, and then to get individuals to participate. Community members heard that cocoa production had worked in several other areas of the Pacific — but they did not hear how those areas were different from their own, or how the 1/2 hectare of trees they received from the project would be insufficient to generate a meaningful income. People who live with constant risk are risk averse enough to not put all their eggs into this basket, of course, which is why participants asked the cacao project managers to pay for labor to tend the cacao. Community members have also seen enough projects come through that they are well-aware of the downsides generally, and this is another reason why the poorest community members often do not participate in these projects: they do not have the buffer to bounce back from the project not providing when they had a series of proven options that they knew could work. This is likely another reason that woodcutters were not planting cacao.

Second, the recurrent unmet expectations generated by these projects left people disillusioned with these efforts and unlikely to participate, but also disillusioned with the Governing Board and Community Council process, whose primary efforts are dedicated to bringing these projects into the community and responding to their demands. Chapter 6 will address this phenomenon at length.

13 Alternative roles for alternative livelihoods

As should be clear by now, and as multiple directors of the BIOREDD+ program explained in my interviews with them, the alternative development projects of BIOREDD+ were supported by the bare minimum that USAID could spend on them to make these projects appear "real" to a distant observer (see Chapters 6 and 7). Being able to name and maintain the form of these alternative livelihood projects gave USAID and the BIOREDD+ team a foundation upon which to attract the private investment it so desired. The support for these projects also served as a plausible storyline for how livelihoods in the communities were shifting away from cutting trees, forming the basis for a narrative about how the projects were slowing deforestation.

The opportunity to both create long-term support for these projects via private investment, and to create income for the community via carbon credits helps to explain the decision of USAID's environment chief to focus on the REDD+ certification above investing in the unique livelihoods projects that interested each community at the start of the program. As Chapter 7 explains, the fact that these projects did not in fact divert woodcutters from cutting wood, or reduce deforestation in any other way, ultimately did not prevent the project from generating carbon credits. Yet the requirement for "additionality" to be met as part of generating carbon credits necessitates a story to explain what exactly the project is doing that allows it to change outcomes away from "business as usual" and thereby generate the change in deforestation rates that can create carbon credits. These "alternative livelihood" projects fulfilled that story.

As for private investment, as Chapter 4 details, the effort by the BIOREDD+ Chief of Party and Director of the USAID Environment team to attract Althelia and others as backers of the projects did not work out in the initial years of BIOREDD+. However, the increasing attractiveness of the projects thanks to their carbon credits, and the attractiveness of the Colombian market for REDD+ projects, driven by the carbon tax and its zero carbon offsetting loophole, have encouraged investors to take another look and reopen talks with the Community Councils and Fondo Acción, currently the financial guardian of the carbon credit funds.

14 Other REDD+ influences on livelihoods

While the BIOREDD+ project in its 2012-2015 iteration and years immediately following produced no great benefits for the people of Los Cocos, it may generate benefits over the long term that could help secure local livelihoods through a different route. These benefits would come in the form of greater certainty over their territorial claims as a result of the national and international cache that participating in this REDD+ program gives the community. There are several reasons that this might occur.

First, Colombia's central government has shown increasing interest in making the country a leader in REDD+, especially in light of global concerns about increasing deforestation there resulting from the peace deal and the opening of many forest areas previously controlled by the FARC to deforesting-linked activities such as cattle ranching. Projects like those of BIOREDD+, which seem like ideal REDD+ models in many ways from the outside – "owned" by Indigenous and Afro communities, conserving, ostensibly, some of the most biodiverse forest in the world while generating sustainable livelihoods – are a feather in the cap of the Colombian government in its efforts.

In addition, these projects are key for the carbon tax system that the Colombian government has put in place, allowing the biggest polluters to escape a carbon tax by paying to buy lower cost carbon credits generated by these projects. These powerful companies therefore have every incentive to keep these projects alive and can benefit from the useful image of them supporting

Afro and Indigenous communities and biodiversity even as they are harming others in another part of the country.

Finally, the projects, and their generation of carbon credits, lends more credibility to the notion that Afro communities are in fact "stewards" of their forests, and that this role they were expected to play as part of the titling of their territories is indeed being fulfilled (see Chapter 4).

The production of carbon credits in these projects may just help to contest any central government effort to take back these lands or give away mining concessions on them – a real possibility given that the communities do not own subsoil rights.

In addition, the fact that Los Cocos and other BIOREDD+ communities are now part of this REDD+ program, and generating carbon credits, attracts other opportunities – for better or for worse. There have been a series of efforts backed by USAID and other donors interested in forest conservation to continue supporting conservation in the communities under BIOREDD+, for example, and additional interest from investors like Terra Global Capital, Wildlife Works, and Althelia. Many of these projects were just getting underway or being negotiated in Los Cocos when the COVID-19 pandemic hit, slowing the pace of these efforts considerably as travel to the communities was severely curtailed to prevent the spread.

None of this guarantees that the Community Council of Los Cocos will be able to maintain control of their territory in the face of threats from non-state actors – indeed, there are many communities and individuals in Colombia that have not been protected by the spotlight of international organizations. The community may very well struggle to assert control, for example, against those using violence to force the entry of backhoes into communities to carry out illicit mining activities, or the various bands of armed actors formed to fill the vacuum left by the FARC to control the cocaine trade in the area. It has been the communities that must face these threats directly and often alone – and government intervention has not always been welcomed or helpful in managing these threats. If BIOREDD+ communities like Los Cocos begin to see benefits from participating in REDD+, however, including by gaining prestige at the national and international level, they may be more inclined to push back against those actors where they threaten to undermine the very things that are theoretically underlying this prestige. Having the eyes of the world on them as they do so may be helpful for discouraging the deadly repercussions of the past.

Nonetheless, development projects, including BIOREDD+, have had, as we have seen in this chapter, perverse impacts on the communities in the past. As Chapter 6 shows, these impacts extend to governance and institutions in the community. Will the global and national spotlight that REDD+ brings be more powerful than these impacts? Might it even help to heal some of these harms and recover a stronger sense of community and cohesion in Los Cocos? Or might it exacerbate these divisions? It is hard to know the answer in the abstract, but this will be an area for exploration in the years to come in Los Cocos and other REDD+ projects that have particularly compelling stories.

Interestingly, in La Hormiga, leaders have long been experimenting with efforts to raise the profile of the river and its conservation efforts and fights against mining with heavy machinery and coca. They do so, as the leaders describe, to build a community of support for their resistance work. They've funded their own internal projects with Kick Starter campaigns, developed their own short films about livelihoods and the values that guide the people of the river, welcomed academics, journalists, and university projects to tell their stories, and brought in international organizations, the PCN, and government agencies to support them and bear

witness in difficult moments. For their efforts they have been awarded prizes, such as a leadership prize from one of the country's most prestigious news organizations.

15 Conclusion

The BIOREDD+ project did not grab land, displace people, or undermine the livelihoods of those dependent on the forest, as many feared REDD+ might when the concept was initially articulated. Instead, it is near to succeeding in just what REDD+ critics were concerned that REDD+ was ill-equipped to do: to provide funding to communities that have conserved their lands relatively well in the past. It felt on the ground to residents of Los Cocos very much like a continuation of the projects of the past, provoking abundant frustration in the execution of the efforts. Not everyone was able to benefit, and in some cases those who received something from the projects were ill-equipped to create enduring benefits out of what they were given.

While the project had initially proposed to continue building on past forest zoning and conservation plans, by beginning to actually enforce these plans, this never happened, and nobody was forced to change their livelihoods or where they worked. It was eventually decided that this would come *after* the money from carbon credit sales appeared, so that there would be funding to pay both woodcutters not to cut and teams to look after protected zones and keep outsiders out. Because these credits have materialized *despite* the lack of change on the ground, the project has also show that, depending on the methodology used in REDD+, the success of REDD+ as measured by carbon credit generation need not depend on the success of ICDPs diverting those cutting trees into other activities (see Chapter 7).

The fact that the BIOREDD+ project could not change in a few years what USAID's previous decade of project was not able to is perhaps not a great surprise. The USAID and contractor team saw their work, however, as a longer-term investment, with the possibility of REDD+ generating income for the communities over a decade or more, potentially. Offering a source of funding to communities via these regular sales could therefore be a benefit of REDD+.

Yet the experience of BIOREDD+ also offers a lesson in this regard: the complexity and controversy of REDD+ also makes it expensive and "expert-dependent" to create these carbon credits. As a result, benefit distribution from USAID was unevenly balanced in this context between the individuals working as the intermediaries to help the projects generate carbon credits, and the communities participating in REDD+. If the proceeds from carbon credit sales continue to be used primarily for these intermediaries in processes like the next verification to produce *additional* carbon credit sales, leaving little in the community, this is unlikely to change much on the ground. It is in this sense that having more funding backing REDD+ is theoretically helpful, as higher prices per credit might allow for both communities and intermediaries to gain a fair shake; as it stands now, however, even with Colombia's unique market for REDD+ credits, paying for these verifications is a challenge.

The hopes for what would come of REDD+ with higher carbon prices also assumes that REDD+ would continue to be primarily supported through aid donors even with carbon at these higher prices. If instead private investors begin to make up most of the support for REDD+ projects, the experience for communities might be very different. After all, USAID rejected offers by private investors to support the projects, saying that, even with government-backed insurance of the investments, the terms they offered were "not aligned with our mission." More funding may therefore simply mean worse terms for the communities and more benefits for the intermediaries and may mean stricter restrictions on forest use and tree cutting because the intermediaries have more to gain from the carbon credits generated.

The REDD+ projects in communities like Los Cocos that participated in BIOREDD+ are among those most likely to provide an indication of the direction that project REDD+ might take if more funding does materialize, given Colombia's new market for REDD+ and other carbon offset projects. Private investors have set up shop in the country, and companies like Chevron, Petrobras, and PRODECO are looking to broker deals with communities to get their carbon credits even before they have been verified. This is of course a thorny outcome from the standpoint of trying to reduce deforestation through REDD+ – a question that will be addressed in Chapter 7 – but also a reminder of the limited scope of this community-centered livelihoods analysis in a project that, in reality, links actors from across the country and globe. This chapter does not assess, in particular, the impacts that these companies that are investing in REDD+ carbon offsets have on the livelihoods of those they have displaced from lands for coal mining or oil drilling, or whose water sources they have destroyed through their activities.

Yet this analysis, limited in scope as it is, finds that the way the BIOREDD+ project played out is about as one might expect under project leadership that is trying to show what a "best practices, pro-poor" REDD+ might look like. These expectations would include that it would work where community tenure rights are already established, that it would not push community leaders to change anything on the ground. Moreover, it would end up investing its funds primarily in validation and verification processes because of the complexity of doing so in a way that tries to show the world that the project has *not* done harm – and that, despite not changing anything, it would generate carbon credits that the community could then sell to generate, in theory, future benefits. Despite the lack of changes for livelihoods in Los Cocos, then, it is therefore in many ways an ideal REDD+ projects for local livelihoods, having incorporated many, though not all, of the critiques thrown at REDD+ at the start about what REDD+ could become. The little that the project itself has benefitted the community to date despite this effort, and its livelihood costs in lost time and effort, and governance costs elaborated in Chapter 6, do not bode well for other "community-centered" REDD+ efforts. Nonetheless, whether the next iterations of this effort in Los Cocos and the additional resources and attention it attracts can meet some of the expectations that people of the rivers have to generate funding and sustainable enterprises that keep young people in the river, protecting their territory from outsiders, has yet to be fully seen. The leaders of La Hormiga are keeping a close eye on what happens there to decide whether they might find a way to benefit from REDD+ on their own terms in the future.

Chapter 6. Community Titling meets Conservation and Development: Effects of External Actors' Conservation Plans on Community Governance

> With deforestation and other land uses now accounting for about 11 percent of annual global greenhouse gas emissions, weak legal protection for forest communities is not just a land or resource rights problem. It is a climate change problem (Stevens et al. 2014, 1).

1 Introduction

This chapter contributes to ongoing conversations in global development and conservation communities about what "works" in efforts to help communities manage their natural resource base sustainably. It does so specifically by examining how local governance processes, and the legitimacy of local governance bodies, affects the management of the natural environment in a given territory, and the role of external actors in shaping that governance. At question are impacts of the external demands that come with titling and integrated conservation and development programs — especially REDD+ — on governance practices and the legitimacy of local institutions.

The study is grounded in the contrasting cases of the Afrodescendant communities of Los Cocos and La Hormiga — one of which participated in REDD+ and one of which did not. I show through these cases that the presence of external actors who seek to dictate the actions and priorities of a nascent governance institution can undermine this institution — and in turn undermine the strength of resource management institutions.

These overarching lessons are not, I argue, new ones, but rather extensions of conclusions from some scholars in studies of decentralization, land titling, and development and conservation projects. Some of the lessons I draw from the comparison between Los Cocos and La Hormiga can also be found within the field of New Institutional Economics, for example, dedicated to assessing the factors that made communities successful at managing their local "common pool resources" sustainably. The chapter's findings nuance the findings from econometric studies suggesting that the presence of external actors promoting conservation in a newly-titled community will help to strengthen that community's governance and improve resource sustainability.

I start by reviewing the relevant lessons that have come out of these other fields — the same fields, indeed, that have suggested the value of titling and Payment for Ecosystem Services projects in the first place. What do they have to say about the interactions between local governance institutions and external actors? While econometric studies I consider like those of Busch and Ferretti-Gallon (2017) and Blackman and Veit (2018) are hard pressed in and of themselves to explain the mechanisms for their findings, the rich fields from which their hypotheses emerge offer abundant evidence to explain these mechanisms.

I go on to describe how the Pacific Coast of Colombia has become an important testing ground of the interactions between securing land and resource tenure, local governance, development and conservation projects, and deforestation. I explain how interactions with the development actors in this region, including through REDD+, have shaped the governance and natural resource management practices of Los Cocos and La Hormiga. Understanding why even projects that aim specifically to "strengthen local governance" may do the opposite, then helps us to understand how the interactions between these communities and external actors trying to

shape forest management have led to these surprising outcomes. I discuss the implications of my findings for both REDD+ and land titling processes, and their proposed roles in reducing deforestation.

2 Literature Review

Over the last decade, amidst growing concern internationally about tropical deforestation and its links to climate change, two "solutions" have risen to the top of the global agenda for reducing this deforestation. The first is REDD+ — Reducing Emissions from Deforestation and Degradation — which, as explained in Chapter 2, is designed to pay those "controlling" forests to conserve them through carbon credits. This strategy is argued to shift the balance of economic incentives away from deforestation and toward conservation. A second solution promoted at the international level has increasingly garnered attention from NGOs, academics, and policymakers: securing land and resource rights for local communities living in and around forests, with a focus on community land titling as the preferred option.

Two non-profit "think tanks" based in Washington, D.C., the World Resources Institute and the Rights and Resources Initiative, have been particularly active in promoting community land titling and linking it to conservation and climate change outcomes. They jointly published an influential report in 2014 arguing that strengthening land and resource rights could be considered an "approach" to combating climate change. The introduction to the report argued that,

> The international community agrees on the urgent need to reduce greenhouse gas emissions from deforestation and forest degradation…But we are missing a vital opportunity to combat climate change—strengthening the land and resource rights of Indigenous Peoples and local communities whose well-being is tied to their forests (Stevens et al. 2014, 1).

These organizations have published several follow-ons to this, including a report suggesting that tenure rights are a particularly cheap way of addressing climate change (Ding et al. 2016). Other economists have since taken up the issue in their own research. Blackman et al. (2017), for example, in their study of the forest cover effects of community land titling for indigenous communities in Peru in the early 2000s, found that titling appeared to reduce deforestation the year of and year after the titling occurred, though the authors did not analyze the long-term effects.

How are these rights and REDD+ connected? Researchers have framed the value of providing clear land titling and resource rights in and around forests vis a vis REDD+ in two primary ways. Many have suggested that clear tenure is a necessary prerequisite to a fair and effective REDD+ (Westholm et al. 2011) (Cotula and Mayers 2009; Sunderlin, Larson, and Cronkleton 2009) (Naughton-Treves and Day 2012). Some of these same researchers have argued that one of REDD+'s greatest opportunities is to incentivize countries to provide this tenure security (A. M. Larson et al. 2013). Also commonly heard in this circle of thinkers is the idea that REDD+ and community titles might go particularly well together, as REDD+ strengthens the returns that communities get to conserving their forests for future generations within their territories.

Some researchers have used an econometric lens to assess the validity of these claims. Busch and Ferretti Gallon, in their 2017 meta study of econometric analyses assessing what drives and reduces deforestation, concluded that secure land tenure and community forest management were "not consistently associated with either lower or higher deforestation," but they find Payment for Ecosystem Services, like REDD+, to be the most consistently linked to lower deforestation

levels[28] (Busch and Ferretti-Gallon 2017, 13), though the authors suggest that a dearth of econometric studies on the topic weakens their conclusions (Busch and Ferretti-Gallon 2017, 16).

Another influential study by Blackman and Veit from 2018 shows that indigenous lands consistently have lower deforestation rates than non-indigenous lands. The authors consider a few "theories of change" that might help explain their findings, including that the strengthening of internal governance and relations with external actors that develops during the titling effort may underpin lower deforestation rates (Blackman and Veit 2018, 57–58). They hypothesize that several activities necessary for titling would strengthen governance, including the internal meetings necessary to decide whether and how to participate in the titling process, encounters with external NGOs and titling agencies, including to map the community's boundaries, and the actual process of demarcating the boundaries. Communities seeking title might also build relationships with external agents, such as extension agents able to provide technical assistance, or private companies wanting to invest in "intensive agriculture or improved silviculture." (Blackman and Veit 2018, 57–58). Other actors that newly titled communities may link up with include aid agencies or NGOs looking to promote combined conservation and development programs like REDD+. Following from these new relationships and opportunities, the authors suggest that livelihood improvements are probable, and that reductions in forest felling[29] are more likely to follow than for communities that do not go through this titling process.

In combination, then, these studies seem to support the hypothesis that a community receiving title to its lands, and participating in NGO, state, or private programs to reduce deforestation and raise local incomes — particularly through Payment for Ecosystem Services programs, like REDD+ — might offer a particularly hopeful path to minimizing future deforestation in that area. The experience of Afrodescendant communities in the Colombian Pacific provides a useful set of cases to test this combination in practice and has not yet been included in these kinds of analysis. Not only did these communities receive community land titles from the state, partly in the hopes that they would be better able to conserve their lands as a result, but many of them also have, as previous chapters have elaborated, been participating in a payment for ecosystem services project in the form of REDD+ over the last eight years.

While the interest in the role of outsiders and tenure in shaping resource governance and use are of particular interest in the context of REDD+ today, the question of how local populations manage their natural resource base, and which factors inhibit or promote this management, has been explored in several research projects over the last forty years, all of which contribute valuable takeaways for these current investigations. The rest of this section therefore lays out key cross-cutting lessons from studies that focus on the particular institutions that communities rely on to manage their natural resource base and the factors that shape these institutions.

To begin to understand the relationships between institutions and sustainability of a common pool resource base, I start with the body of work on common pool resource management that has bolstered arguments for community titling, centering communities within conservation efforts. This field is a subset of New Institutional Economics dedicated to understanding the local governance structures and institutions that enable local populations to maintain the health of common pool resources, avoiding the famous "tragedy of the commons" that Garrett Hardin

[28] They suggest some of this effect from PES must be tempered by the fact that many of these programs tend to target "low-hanging fruit," with payments "disproportionately made to lands with a lower threat of deforestation." This has also been found in REDD+ (see)

[29] They admit that some research (e.g. Chomitz 2006) points to the opposite happening where local incomes rise.

wrote of in the 1960s (Hardin 1968). With case studies from watersheds, forests, fishing commons, and many other stages around the world now numbering in the thousands, this global research effort has generated a much clearer understanding of the barriers and enabling factors of these regimes, and how they evolve over time (c.f. Agrawal 2001b; Berkes 1985; Dietz, Ostrom, and Stern 2003; Ostrom 1990). The body of literature, in combination with critical contributions from researchers from the fields of geography, rural sociology, and others outside the New Institutionalist frame, has established the fact that common pool resources may not require a national government's intervention to ensure their sustainability (Agrawal 2001b; Berkes 1985; Dietz, Ostrom, and Stern 2003; Ostrom 1990).

The work from this field is one of the principal pieces of evidence used by those advocating for community titles, or some other form of strong, legally-enforceable communal tenure rights, to their common-pool resources. Much of this research shows that a community is more likely to invest in management and coordination of local resources if its people feel assurance that they will be able to benefit from the fruits of these investments into the future. The social relations that serve as the basis for the management of each resource in each place, however, are unique[30] and evolving, leading to particular and ever-changing resource tenure and management regimes (Fortmann 1985). Among these may be institutions that look more like an idealized "private property" regime (Rose 1994, 37), and different kinds of property systems often overlap (Feeny et al. 1990). Ostrom has emphasized in her work that creating sustainable management through a locally organized common property regime is messy and hard. As she and her coauthors write in their 2002 book, The Drama of the Commons, "Three decades of empirical research have revealed many rich and complicated histories of commons management. Sometimes these histories tell of Hardin's tragedy. Sometimes the outcome is more like McCay's comedy. Often the results are somewhere in between, filled with ambiguity" (Dietz et al. 2002, 4).

The literature finds that, while the range of factors at play in any given resource management regime are too many to, say, make it likely that secure tenure will result in sustainable resource management, there are also certain attributes of both resource users and the resource they share that are more likely than others to lead to more sustainable and enduring common property regimes. Ostrom has pulled these out of hundreds of studies of institutional arrangements governing common pool resources (see Table 6.1). As Ostrom and other scholars of the commons are quick to point out, the presence or absence, or strength, of each element per se is not determinant of whether a common property regime will emerge or succeed in sustaining a resource. Rather, these are commonly found, often in some combination, in those places where resource users have, for a time at least, negotiated a way to sustainable manage their resource base. Ostrom describes these as "attributes of participants (that) are conducive to their selection of norms, rules, and property rights that enhance the performance of communal property-rights systems."

Table 6.1. Attributes of the Users of the Resources

1. Accurate information about the condition of the resource and expected flow of benefits and costs is available at low cost to the participants.
2. Participants share a common understanding about the potential benefits and risks associated with the continuance of the status quo as contrasted with changes in norms and rules that they could feasibly adopt.
3. Participants share generalized norms of reciprocity and trust that can be used as initial social capital.
4. The group using the resource is relatively stable.
5. Participants plan to live and work in the same area for a long time (and in some cases, expect their offspring to live there as well) and, thus, do not heavily discount the future.
6. Participants use collective-choice rules that fall between the extremes of unanimity or control by a few (or even bare majority) and, thus, avoid high transaction or high deprivation costs.
7. Participants can develop relatively accurate and low-cost monitoring and sanctioning arrangements.

Source: Ostrom 2000, 346–47

This list emerged from studies of a range of common pool resources, including fisheries, watersheds, and forests. The latter, the focus of this work, have their own unique features that help shape the tenure regimes that develop over time to manage them. While trees have value as timber, for example, the agricultural value of the land on which forests live may be perceived as greater than investing in a slow-growing timber supply, especially in areas where forests appear abundant. Though generally recognized as a more ecologically-friendly practice than clearcutting, selective harvesting of the largest trees can also have impacts on local ecosystems (see Gatti et al. 2015, for example), but may not easily be linked by local communities to declines in access to resources of value to them. Such degradation may have wide social costs that are both challenging to link to the resource use, and do not necessarily fall hardest on the person who cuts the trees - an attribute typical of the commons. And while those who cut trees might engage in practices that promote growth of the same valuable timber species they have taken, the fact that they may not see the benefits from that work in their lifetimes can disincentivize this “extra” work. Expecting one’s children and grandchildren to benefit might provide additional impetus for replanting, but many of these regions are experiencing migration and increasing links to global markets, reducing this incentive for wood harvesters even where they have secure title to the land (see Points 4 and 5 in Table 6.1).

Importantly, standing forests also offer much more than timber. They provide a wealth of resources to different individuals. As McKean describes them, forests are a complex of many commodities with attributes of both common pool and public goods (McKean 2000). These include “non-timber forest products” for food, medicine, or crafts, which are commonly considered by development organizations as potential sources of income and well-being benefits for women in particular (International Fund for Agricultural Development 2008). Forests are also home to animals that communities rely on for their protein supply. These multiple uses, while potentially offering more reasons to conserve forest cover, also complicate the development of forest governance institutions (Gibson and Becker 2000, 138). Trees and other plants or resources in the forest may belong to several different people at once depending on the tenure

system — as Fortmann notes in her annotated bibliography of tree tenure regimes from around the world, the person who owns the land, provides the seedling, and waters the tree may all be distinct and have different types of rights to the tree (Fortmann 1985, xi). Forests, therefore, have characteristics that make them strong candidates for being managed through common property regimes in the right circumstances, but they also present specific challenges to the creation and enforcement of these institutions. These lessons from Ostrom and the many other scholars of this field — particularly those who have focused on forest management — are key for understanding institutional development and where sustainable management is more likely to happen. They help us to understand where some of the differences between Los Cocos and La Hormiga emerge from, and the challenges that all communities of the Pacific are likely to face in establishing successful forest management institutions in the wake of receiving their community titles.

Studies of both integrated conservation and development projects (ICDPs), and Payment for Ecosystem Services programs have also help us to understand what is taking place in the Colombian Pacific, and what it teaches us about forest conservation tools. The idea behind ICDPs began gaining adherents in the conservation community in the 1980s, as concerns about tropical deforestation surged onto the global agenda, along with worries over the depletion of "biodiversity" found in tropical forests (c.f. Myers 1985). Alpert describes this shift into trying to combine development and conservation as a "marriage of convenience," noting that "The attempt to integrate conservation and development has been inspired largely by the failure of either to succeed on its own" (Alpert 1996). The essential idea behind these projects was that people were likely to overhunt wildlife, degrade ecosystems by cutting trees, or overfish if they had no other livelihood option. Therefore, the thinking went, conservation programs needed to be paired with "development" projects that could ensure local people's livelihoods. It turned out that creating "alternative livelihoods," was much harder than most people believed, generating many lessons for future conservation efforts. Yet the lessons were not, largely, to move away from the neoliberal conservation theory of change McAfee describes as "selling nature to save it" (McAfee 1999), but rather to create new markets in which to sell nature (c.f. Banerjee et al. 2013).

Indeed, the failings of many ICDPs to achieve their primary goals (c.f. Brown 2003; Flintan and Hughes 2001)— particularly given the challenges of generating effective markets for many products from these rural regions — was part of the inspiration for Payment for Ecosystem Services (PES), which began to pick up steam in the early 2000s (McShane and Wells 2004). The premise of PES is that people will be incentivized to protect a resource primarily if they are paid to do so, and that because others often benefit from the protection of a given resource, those users should have to compensate the protectors for their work or foregone use (Wunder 2005). The classic, and most "mature" example of this is watersheds in which the protection of a water source by those who live around it is compensated by payments from downstream users who benefit from clean water (Salzman et al. 2018). This theory of change has been extended to other areas of conservation, however, including via biodiversity (Moreno-Mateos et al. 2015) and forest carbon offsetting (Pirard 2012). In these models, organizations or individuals either "offset" their emissions or damage to biodiversity by purchasing credits that assured the buyer that emissions were being captured, or biodiversity conserved, elsewhere (c.f. Forest Trends 2017). These purchases might be driven by regulatory requirements or by voluntary commitments by the companies. What has been learned of the governance impacts of these projects and programs over the last thirty years therefore clearly also has bearing on how REDD+ is likely to interact with community governance structures and institutions.

The realization among the conservation community of the 1980s that "protection of threatened areas needed the co-operation of the local population to be effective," was combined with another shift of that moment: "the globally growing awareness that indigenous people have rights that should be respected, and also should get the chance to develop" (Uddhammar 2006, 675). Indeed, the 1980s was a breakthrough moment for indigenous rights internationally. The International Labour Organization's 1989 Indigenous and Tribal Peoples Convention (Convention 169) and the 1992 Rio Earth Summit were spaces where both the role of indigenous peoples globally as ecological stewards, and a discourse about the right of indigenous people to own the lands they traditionally occupied began to be integrated into international law (Ribis and Mascarenhas 1994)[31] - though Agenda 21, the agreed set of global goals that came out of Rio to promote sustainable development, stopped short of calling for land titles for indigenous populations (International Alliance of Indigenous-Tribal Peoples of the Tropical Forest and International Work Group for Indigenous Affairs 1992, 16). A growing number of individuals working in global conservation had begun to recognize in the 1980s that indigenous communities, rather than being enemies to conservation, made natural allies since they often were fighting the same actors encroaching on their lands (Colchester 2004; Alcorn 1993). As a result, a tenuous global pact began to form between these groups — indigenous peoples using their historic sustainable stewardship of lands to gain conservationists' support for land titling, and conservationists suggesting that providing secure land titles to indigenous peoples was not only a critical human right, but also could create conservation benefits (Schwartzman et al. 2000). [32]

The governments of tropical countries, under pressure internationally to respect indigenous peoples, slow deforestation, and protect biodiversity could show progress in all of these areas by providing some form of legal recognition of indigenous lands, and they began to do so at a more rapid clip. What this "recognition" has meant in practice varies widely, with different bundles of rights being offered to communities in different countries. The Rights and Resources Initiative found that as of 2015, around 15% of lands in Africa were either "designated" for or owned by indigenous peoples or local communities, while this number was about a quarter of all lands in Latin America and Asia (dominated by China) (Rights and Resources Initiative (RRI) 2015). Only a portion of these have "ownership" over the lands, which generally comes with a greater

[31] The rights of indigenous peoples were finally enshrined globally in the International Labour Organization's 1989 Indigenous and Tribal Peoples Convention (Convention 169), which called on governments to recognize the "rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy," and to establish legal processes to "resolve land claims" by indigenous peoples (ILO 169 Article 14). This was elaborated nearly 20 years later in Article 26 of the United Nations' 2007 Declaration on the Rights of Indigenous Peoples. The Agenda 21 text that emerged from the Rio Earth Summit in 1992 Agenda 21 recognized indigenous groups `holistic tradition of scientific knowledge of their lands, natural resources and environment.'

[32] This union between indigenous populations and conservationists was not universally endorsed. Many indigenous peoples were skeptical of the same people who had been trying to kick them or their brothers off their land. Some conservation biologists, meanwhile, doubted that the conservation habits of indigenous peoples would be sustained through the introduction of markets and new technologies, and continued fighting for "unpeopled" protected areas or public lands as a preferred conservation end (c.f. Terborgh 2000). Interest within the conservation community in enabling the creation of common property regimes to control forests has grown, however, in light of the ecological problems generated through governments' replacements for them, including forest or agricultural concessions, protected areas that ended up as open-access lands, or resettlement programs. Other critics of this discourse of indigenous peoples as ecological stewards, however, were uncomfortable with the way parts of the conservation community were "using" indigenous peoples to achieve their ends, and essentializing and homogenizing such a diversity of peoples in the process (c.f. Colchester 2000).

array of rights and security though it may come with additional legal obligations. These titling processes have also occurred in different ways around the world, sometimes under the banner of "land reform" (Deininger 1999). Recent work has shown that even when the laws are in place, the processes needed for communities to obtain titles may be long and arduous, and many never achieve their goal (Notess et al. 2018).

Other non-indigenous communities have been able to take advantage of this global push for titling to secure additional rights from the state over their customary lands. This was the case in the Colombian Pacific with Afrodescendant communities in the 1990s, who also used their own credibility as ecological stewards to attract supporters to their cause (see Chapter 3). The World Bank provided a 39 million USD loan to Colombia for this indigenous and Afrodescendant land titling effort (Ding et al. 2016, 81), while SwissAid provided funding for technical consultants to assist in the creation of the governance bodies required by the state in these newly titled territories — the Community Council, and its Governing Board.

This increasing state transformation of customary land rights to community titles or other legal tenure recognition occurred simultaneously with decentralization efforts within many of these same states. The long trajectory of state centralization around the world began reversing, particularly with the collapse of the Soviet Union and the rise of neoliberalism (Li 2007; N. Rose 1999). Decentralization of central state control to the provincial and local level appeared on the agendas of multilateral financial institutions and aid donors beginning in the early 1980s and continuing through the 1990s (World Bank 2008). By the end of the 1990s, over 80% of "developing" and "transition" countries of Eastern and Central Europe and the former Soviet bloc had begun experimenting with reversing the previous trend toward centralizing power in the nationstate (Manor 1999, viii). Decentralizations were also being promoted by the World Bank across much of Latin America, Asia, and Africa. In Colombia, fiscal decentralization began in the mid-1980s, while political decentralization started in the late 1980s (Eaton 2006). Both were solidified via the country's new Constitution of 1991 (Eaton 2006).

Decentralizations around the world, which included shifting decisions about local government, and sometimes local resources, to the people who lived in those localities, were undertaken for many reasons (Manor 1999). Ostensibly, a decentralized government would be more responsive to those it serves, given its proximity to them, and promote greater participation among the public in their own governance. In other words, decentralization is proposed to be more democratic (Agrawal and Ribot 1999, 475). Aid agencies and multilateral banks pushed such decentralization with these "good government" justifications but multilateral finance institutions also had another reason to push for decentralization. It was cheaper for central governments to pass some of their responsibilities to lower levels of government (Larson and Ribot 2004). Neoliberal economists at these institutions also hoped it would loosen the grip of governments over central planning (Ribot and Larson 2005). Whatever their intentions, however, decentralization initiatives have often struggled to increase democratic participation and representation, given the many pitfalls to achieving their purported ends (c.f. Larson and Lewis-Mendoza 2012; Larson and Ribot 2004; Ribot, Agrawal, and Larson 2006; Ribot 1996; Agrawal 2001a).

While the inspirations for decentralizations are generally distinct from those of granting land titles to indigenous and local communities, these processes also interact, and they often share common consequences. These titling efforts are even commonly considered a form of and part of decentralization, as in the case of Colombia (Velez 2011; Velez et al. 2019; Gebara 2018). These different forms of shifting legal authority to the local level look especially similar when laws

recognizing territorial rights of communities also required these communities to form particular governance institutions with their agendas partially designed at the start, as in the case of Afrodescendant communities in Colombia.[33] Bilateral and multilateral aid donors and NGOs have also financed these decentralization and titling efforts, and combined these with conservation and development projects in an attempt to support nascent community organizations - also the case in the Colombian Pacific. Overlaps have therefore developed between studies of integrated conservation and development projects, common property regimes for common pool resource management, and decentralization of political control and natural resources.

In what follows, I elaborate a few of the key lessons identified from studies across these overlapping and at times interwoven bodies of research about which preconditions and actions tend to legitimize local governing bodies and institutions under different practices of titling, decentralization, and development and conservation projects. Such legitimacy is critical not only to making decentralization and titling processes more democratic, but also for the effectiveness of any common property regime that might emerge. First, local institutions must have discretionary power and the opportunity and support to be accountable to those they represent. Second, these efforts must respect preexisting governance structures and institutions. Third, outside funding should have a minimal and specific roll in community governance and efforts to develop resource management institutions.

3 Local governing bodies: discretionary power and downward accountability

Implicit in the debate about the role of local people in the management of natural resources and the level of control most likely to sustain those resources, is the issue of subsidiarity: the principle that decisions should occur at the lowest level possible unless there would be greater efficiency or effectiveness in taking them at a higher level (Follesdal 1998). Given the multiplicity of values that a forest provides — locally, regionally, and globally — does it make sense for local communities to lead the management of these forests? In many countries, the government's answer to this question has remained "no." Even where decentralization has occurred, central governments have typically retained control of forests through environmental laws, rights to the financial benefits of forests, or prescriptive requirements for community management plans for forests (Ribot 2003, 56–57) (Cronkleton et al. 2010, 43–44).

The perspective that central governments should retain some control over forests extends beyond governments seeking to maintain revenue streams from their forests, however. Even the World Bank, which generally supported decentralization throughout the 1990s, produced a report in 1996, "Decentralization and Biodiversity Conservation," that argued against the notion of "locals" as environmental saviors:

> Not all functions of government can be decentralized usefully, however. Nonlocal groups may be in a better position than local ones to appreciate long-term or large-scale issues and to act as disinterested arbiters of local disputes that cannot be resolved locally. This nonlocal perspective is vital in conservation, the fundamental concern of which is to avoid, and if necessary to manage, conflicts of interest among species, generations, regions, and nations. Therefore, empowerment of local groups should be balanced by a continuing role for central government to deal with market

[33] In some cases, these local institutions were set up such that they competed in certain ways with the local governments that had been granted additional powers in the decentralization process.

failures and to ensure social equity and environmental protection" (Lutz and Caldecott 1996, 2).

While central governments must be willing to offer credible force to supporting the property rights they have granted to communities, and while some "co-management" arrangements have had some successes (c.f. Cronkleton et al. 2010), central government interference in controlling local resources can also undermine community management efforts. Indeed, where decentralization is done "halfway" and fail to offer meaningful discretionary power to local governments, the local governments are necessarily weaker, local people are likely to feel less ownership over the resource base, and establishing sustainable common property regimes may be a struggle. The motivations of individuals living in a forest may not align with global aspirations to maintain maximum forest cover intact for the purposes of sequestering CO2 and reducing climate change. Decentralization that mandates that they manage their forests in a particular way or assumes that there is a local demand for forest conservation (Gibson and Becker 2000), is unlikely to encourage downwardly accountable local governments. While central governments may claim their efforts at controlling forest use are to support conservation, efforts to align their forest laws and enforcement of these laws to these global environmental aims have had little success at best, and instead have, much like these restrictions historically, commonly served to reinforce elite control over land (Pulhin, Larson, and Pacheco 2010). Indeed, state territorialization efforts in these forests have commonly led to still less sustainably managed forests as a result (Vandergeest and Peluso 1995), and central government control of forests has often meant central government agencies or individuals benefitting from deforestation through the granting of forest concessions (Dei 1993). Research therefore suggests that central governments, aid donors, and NGOs must refrain from attempting to "have their cake and eat it, too" in decentralization, hedging their bets by encouraging some powers over land or resources to be retained by the central government, and leaving only ceremonial or meaningless powers with local authorities.

One common way central governments or development practitioners limit local institutions' discretionary control over the resources around them is to ask them to compete with other institutions in the same function (Ece, Murombedzi, and Ribot 2017). Decentralizations or development projects may, for example, mandate new institutions with responsibilities that overlap with those of existing local bodies. These organizations can weaken each other if their functions are overlapping. In particular, if the pre-existing actor had developed institutions to manage local resources, the introduction of new governance bodies and their rules may undermine the original institution.

Relatedly, a common challenge for decentralization is ensuring that the process makes the principal change it is intended to make: that local governments are given more powers to to be accountable to the individuals they represent (Agrawal and Ribot 1999). As Ribot argues, "Local authorities are often given powers in the form of obligations (mandates) and rights. Fully specified mandates from above do not constitute a discretionary power. Indeed, they may dis-empower an authority if the mandate is unfounded, if the funds are not sufficient, or if the mandate is not what the local population needs or desires" (Ribot 2001, 27).

Often local governments may be given a particular authority on paper, but be forced to check with a higher authority when making decisions, or to take particular decisions in order to access resources from these higher authorities (Ribot, Agrawal, and Larson 2006). This can also occur not only between levels of government, but also between local governments and the NGOs or donors trying to support them. If locally elected leaders have to spend great effort responding to government or NGO officials in order to maintain access to resources, they may be forced to be

less responsive to the individuals they are supposed to represent. Pursuing the priorities of NGOs, donors, or central governments, particularly when they do not align well with those of the local population, is one form of outward accountability. Others include spending more time attending NGO meetings and writing reports or grants to donors than speaking with the individuals these leaders are supposed to represent. As Ribot notes elsewhere "Empowering authorities that are not held downwardly accountable to local populations can imperil the long-term environmental well-being expected from more accountable local management. It can imperil democracy by taking resources away from emerging democratic structures…" (Ribot 2003, 56). Not only can these failures then undermine the new governance structures associated with decentralization and land titling, but in so doing, they can also undermine efforts at sustainable resource management and lead to environmental degradation.

Finally, specifically in relation to forests, communities are commonly given rights to timber extraction, but must also function under highly bureaucratic regulatory frameworks. "Commercial forestry activities in both communal and private lands are highly regulated by the State, usually by forestry agencies, who must approve forest management plans and extraction permits to forest landowners. The transaction costs to comply with the complex and top-down regulatory frameworks are very high for communities. Management plans tend to be difficult to prepare, unnecessarily detailed and costly" (Warnholtz et al. 2017, 14).

4 Outsiders must recognize and respect preexisting institutions and technologies

The foundational idea of development is a heady venture to begin, with its baked-in assumption that outsiders — whether from the capital city, or from a foreign country — have superior solutions for a given situation than those living with this context. At its most participatory, development suggests that the presence of outsiders can draw out more effective solutions from local practices, in combination with ideas tested elsewhere. The still hegemonic form of development that continues to underpin much of the practice today, however, is that people are living in a particular way as a result of a lack of education, experience, or capital — or some combination of these — and development practitioners therefore design projects to "fill these gaps." As a result, even well-meaning development practitioners have long been trained to believe that the vision they have for improvement is the "right" one, and are commonly challenged to understand, or even see, alternative practices that may be aimed toward the same end. Many development projects are blind to the existing local production systems in place, and even local technicians who perceive these systems and their value may struggle to integrate them into their work on behalf of the project.

Even when outsiders understand the technical benefits of a local practice, an understanding of the social relations underlying this are generally more challenging for these outsiders to recognize, given their training as water or agricultural engineers or conservation biologists, for example. As a result, then, studies of development projects and the colonial systems that proceeded them, have encountered many examples of "misreadings" of local landscapes, resource management practices, and social relations (Fairhead and Leach 1996). These misreadings have in turn led to attempts to force particular practices on locals that contribute to shifts in practices and reconfigure social relations, which may result in less sustainable management of a given resource base. Mosse's classic study of irrigation systems in India exemplifies an outsider's misreading of local context to assume that a foreign system would be technologically superior, combined with a bold belief that local people would readily adopt a

wholly different means of managing water (Mosse 1999). Not only did the introduced system fail, however, but the effort to shift people into this new system led to the destruction of the previous one. Fairhead and Leach, working in West Africa, and Peluso, working in Indonesia, have shown how assumptions among outsiders that local people inevitably reduce forest cover have led to the failure of outsiders to recognize local systems for creating forests, with states closing off these forests to the very people who have created them (Fairhead and Leach 1996; Peluso 1996).

Today, those who have read many of the cases in which groups have found ways to sustainably manage their local resources may conversely assume that particular institutions exist. They may create projects under the assumption that indigenous communities have common property institutions in place to manage local forests, then, "essentializing" indigenous peoples as ecological stewards with particular practices (Ulloa 2005). Just as perverse outcomes may result from a failure to see particular institutions, so can they emerge from development officers or government officials essentializing groups in such a way that they see institutions that don't exist.

Groups that manage local institutions are constantly adapting these institutions to changing circumstances around them today — migration, new technologies, influences from other outside actors, changing economic contexts, and a changing climate, among others. A fundamental criterion for successful common pool resource management over time is adaptability. While there are contexts in which ideas from the outside might benefit the local context and aid this adaptation, the entry of outsiders who claim they have better ways of doing things and attempt to force these practices onto local people can also be destabilizing for even strong groups.

Part of respecting local practices is understanding that "alternatives" for outsiders may not be perceived as "alternatives" by local people. If a culture is built around a practice that conservation practitioners deem harmful, then people may not give this up even if they are offered alternatives. Indeed, there may be additional unforeseen consequences if people are forced to give this up, breaking down social capital and local governance strength, and even driving migrations. Among groups who have traditionally hunted in the Serengeti, for instance, this is not a practice that would easily be given up in response to being given some chickens or being offered some other form of livelihood with which to purchase meat (Barrett and Arcese 1995). The assumption often made by these projects that the primary value of a given activity can be designated in dollars and substituted for as such is highly problematic (Wainwright and Wehrmeyer 1998).

The project model associated with conservation and development "interventions" in particular may generate perverse incentives to aid donors and NGOs to work with communities in ways that can weaken local elected governing bodies — an outcome that goes even a step beyond the many other dissatisfactory results stemming from what Sayer and Wells term the "pathology of projects" (Sayer and Wells 2004). The short timeline for the projects and demands for results, for instance, often leads to the creation of parallel governance structures to carry out projects, or to avoid working with any official local authorities altogether. This can happen where there is a fear or a sense that the elected body is "corrupt" or may slow or hamper the implementation of a project (Colfer 2011).

Aid contractors may also rely heavily on the use of consultants to carry out studies for the project, knowing that they can complete them in a timely way to meet the standards of the government granting the money — despite the fact that outsourcing this work means that these studies are unlikely to have any impact on the lives of people in the area, and often miss key data

that those living in a place know well. Tight project timelines, which assume livelihoods and local conservation practices can be transformed in two years, encourage a focus on short-term bean counting — meeting attendance lists and numbers of new trees provided — rather than efforts to create lasting long-term impact (c.f. Newmark and Hough 2000; Kelman 2013). This may lead also to project staff investing in the people they know will attend meetings, rather than going out of their way to integrate those who might generally be less engaged — this generally leads to projects reinforcing existing power imbalances in communities, with more resources going to the community elites who can spend the time to attend local meetings.

Additionally, the short timelines of projects leave community leaders always needing to be looking for more projects for the future, while the "accountability" demands of the donor may force them to spend much of their time reporting back on activities. The relationships necessary to secure support from these donors also can lead to a closing off of local leadership circles, and the prioritization of local leaders who have perhaps little local legitimacy, but the skills necessary to respond to these demands and interact with outsiders (Brown and Lassoie 2010, 266–67). The project developers may also hire leaders away into their projects, taking them out of the community or diverting their attention from leading to bureaucratic tasks.

New governance institutions take time to gain strength. As such, "effective devolution takes time," Berkes suggests, "requiring a shift in focus from a static concept of management to a dynamic concept of governance shaped by interactions, feedback learning, and adaption over time" (Berkes 2010, 497). In other words, one should expect that new governance bodies formed by decree, such as the Community Councils of the Pacific, will need substantial time and space to understand, balance, negotiate, and fulfill their mandates from above and below. This is an ongoing process and cannot be resolved merely through the creation of rules or management plans. in this delicate process can have deleterious consequences for both governance and sustainability efforts.

5 External funding can undermine local cooperation

While some funding can help a new governance body to manage the essential logistics of governing, McKean's essential principles for developing and maintaining effective common property regimes include the following: "Apart from limited help with local start-up costs, financial support to local common-property regimes is probably undesirable because it might well undermine local cooperation" (McKean 2000, 50). This holds for nascent local governance organizations as well, where over-involvement of donors and NGOs in local governance can lead to internal conflicts that break down the very social capital needed to support common pool resource management (Pretty and Smith 2004).

Dependence on this funding may also result, leading to a situation in which individuals expect local governance bodies to generate this funding, and may refuse to get involved in community projects without it. This "dependence" can stifle local creativity and spontaneity of practices that local people generate for improving their own communities (Ostrom 1998). Pokorney et al.'s 2012 synthesis of experiences of "market-based" approaches to conserve the Amazon provides an example. They found that the assumption among local people participating in development projects was that the ideas of the expert were correct — despite often not understanding these — and that there were no local practices that might benefit the wider community (Pokorny et al. 2012, 395–96). They note that this, in combination with the time diverted from traditional livelihood activities toward development project collaborations, led to the "erosion of local knowledge and capacity regarding traditional land use practices," which in

extreme cases undermined core local livelihood strategies, increasing dependence on external support (Pokorny et al. 2012, 396). Thus, funding and "experts" can also undermine local practices (see Point 1 in Table 6.1 above) simply because of the creation of the expectation that the outsiders know best – which may often be linked to race – and because there are resources available from outsiders.

This is a fine line to walk, as land titling around the world, including in Colombia's Pacific, is a complex process that involves technical expertise, funding, and the delicate integration of communities into the state that have often been only tangentially integrated in the past.[34] Most of these processes require outside "expertise" of some type. This support however, ought to adhere to McKean's suggestion of "limited help with local start-up costs" and should avoid concentrating resources in any one person's hands lest this also lead to a concentration of power.

In sum, given the increasing pressure on forest resources around the globe, a tenure regime in which local communities can feel secure that their rights to their territory and its resources will be defended by the state — and in which it in fact will be defended — is critical for enabling common property institutions to thrive and evolve. Yet as the lessons above from examples of "incomplete" decentralizations and overly involved or demanding NGOs and donors indicate, the limits and expectations placed on the governance bodies that are supposed to be newly empowered can end up stunting them and creating internal discord and distrust in the process. There are clearly pitfalls, therefore, in community interactions with these development actors: risks that their financial resources might promote internal strife, that their demands and rewards system encourage elevating the priorities of and accountability to outsiders, and that they undermine local governance bodies by working around them.

Each of these lessons, learned in different ways by scholars observing distinct efforts to offer local populations more control over their natural resource base, and to help them manage this resource base in a "sustainable" fashion, has reappeared in the cases of the arrival of REDD+ in Los Cocos and La Hormiga in Colombia. The following sections explain how these pitfalls manifested, focusing on the differences in governance practices and forest management between these communities, and pointing to the ways lessons from other research can help illuminate the origins of these differences.

6 Case Background

As detailed in Chapter 3, the Pacific region of Colombia is home to an ongoing natural experiment in the deforestation implications of land titling in combination with development and conservation efforts. The region's tropical rainforests, home to Afrodescendant and Indigenous communities, were long well-conserved relative to the denuded hillsides of the Andes — which drove companies from the western Andes chain, particularly from the Antioquian region, to increasingly look to the rainforests for their resources in the last third of the 20th century. Finding themselves on a new frontier of industrial harvesting sparked a push for land titling among Afrodescendant communities in the 1980s. During debates around the development of a new national constitution in 1991, the relatively successful conservation of Afrodescendant lands — meaning that much forest cover had been maintained over time — was used as an argument for granting land titles to those who lived there (for more on the titling process, see Chapter 3). International recognition of the biodiversity of the region beginning in the late 1980s, coinciding with the Colombian government's desire to improve its image and gain acceptance

[34] Some might argue that this process looks more like co-optation than integration.

internationally, proved a particularly important impetus to prioritizing a future for the region that improved conservation outcomes and moved away from using the region as the Andes' storehouse.

The land titles were not offered as a "blank check" for the communities to then manage their territories according to their own plans, however. Communities had to jump through a series of hoops to first receive the title, including proving the collective management of the land, most memorable for the participants, walking the full perimeter of the territory to demarcate the boundary. are still waiting to receive them — and had to commit to developing and implementing a territorial management plan with the local environmental authority. These plans would have a particular emphasis on forests. The stricter terms under which the titles were ultimately granted reflected two other realities at the time. First, the Colombian civil conflict, a longstanding war between the Revolutionary Armed Forces of Colombia - People's Army (FARC-EP for its initials in Spanish) and the Colombian military, had left a general wariness within the government to grant the kind of autonomy over lands that some in the movement for Afrodescendant rights had requested. The arrival of the FARC-EP in the Pacific at the same time that the titling regulations were being finalized in the mid-1990s likely multiplied concerns among some officials about leaving the territories too far outside of the control of the government. Second, within the biodiversity conservation community, including among the local environmental authorities of Colombia, not everyone was convinced that local people — particularly non-indigenous peoples — made for good conservation stewards. Many in Colombia's conservation community see more parks and fewer people, and more strict regulations and enforcement with less autonomy, as the most effective path to conserving biodiversity in the region. The compromise that was reached, was to grant territorial control to Afrodescendant communities that passed certain requirements, including that they develop their own territorial management plans aligned with the environmental laws of the department and nation. This meant that the communities would have to designate particular parts of their communities off-limits from certain activities but could continue harvesting wood with permission and permits from the departmental environmental authority.

In advance of the titling process, most of the communities of the Pacific did not have the kind of community forest management institutions commonly associated with common property regimes (Leal and Restrepo 2003; Restrepo 1996). This did not mean there were no rules, but that most of the locally created and enforced rules defined private ownership rights over agricultural lands and forests. For example, the forest on the hillside above agricultural land was assumed to belong to the farmer of the lower lands. The individuals tasked with enforcing these rules and property boundaries evolved over time, from unofficially designated community leaders, to leaders of "Community Action Committees" (JACs) promoted by the state, to the "Inspector," a community member trained by the state to stand in for police in rural regions. Law 90, which set up the granting of land to Afrodescendant communities across the Pacific, brought a further shift in resource governance. By the time communities received their land titles, they had to have formed the local governance body required by the new rules of the state — the Community Council — and to know where their official territory boundaries lay, having mapped them all in the title solicitation process. Territorial management planning, however, required in the wake of titling, was a new concept altogether in this region. Given the emphasis on this planning in the law, and the desire of those supporting these communities to meet the requirements of this law, this quickly became the initial point of focus for many recently titled communities across the Pacific.

According to state guidelines, then, planning would be the way for these new institutions to sustainably manage their lands. This involved, among many other steps, working with consultants to develop ecological maps of the territory, studying what harvest practices would be sustainable, marking off zones where harvests would no longer be permitted, and developing lists of rules for woodcutters to follow in their work. In some cases, bilateral aid agencies supported the development of these plans and ensured that the local environmental authority also participated in the process. The hope was that this, along with the land titles, would lead to sustainable forest management. Through this planning process, in combination with the formal practices of the Community Councils required by this new law, governance practices and forest use were "rendered technical," in the phrasing of Tanya Li (Li 2007, 7).

The scale of land title granting for Afrodescendant communities across the Pacific is unique globally. As of 2016, the Colombian government had granted nearly 5.4 million hectares of land to Afrodescendant communities, or some 95% of the Pacific region (Herrera Arango 2018, 2). Given that titling process only began in the late 1990s, this is a remarkable shift in legally designated possession. Over half of that land is tropical rainforest, while the rest is made up of other sensitive ecosystems, including paramos (high-altitude plateaus), wetlands, and other forests and waterways (Herrera Arango 2018, 4).

In some of these communities, these planning processes began twenty years ago, yet there has been little analysis by those outside the communities about how they have played out in practice, and whether they have had the desired conservation and development effects. While academic researchers accompanied these communities throughout the 1990s and produced a substantial body of literature on the lead-up to the titling process, the arrival of armed actors to the region simultaneous to the start of the titling process, constrained ethnographic research. Nonetheless, Maria Alejandra Vélez of the Universidad de Los Andes in Bogota has worked around these challenges to investigate the impacts of collective titling on forest cover across the Pacific, attempting to understand whether communities with titles have had more success in conserving their forests than those without titles, and whether common pool resource management institutions have developed for forests differently in titled and untitled lands over time. In 2011, she published a study assessing the strength of community governance bodies in both titled and untitled communities, as well as their institutions for forest management (Velez 2011). In that study, she found, perhaps surprisingly, that a slightly greater percentage of leaders in untitled communities agreed that there were some institutions in place for managing timber harvests (p. 125), but that these rules were poorly enforced across all communities, with the communities dependent on the state's environmental authority to carry out enforcement (p. 126). In 2019, Vélez and her colleagues followed up on this with a study that relied on further interviews and satellite analyses to assess whether the forests on Afrodescendant titled lands were faring better than those on untitled Afrodescendant lands. They found that deforestation rates were lower in communities with titles (Velez et al. 2019). Vélez and her colleagues suggest, however, that titling is not enough, and looking at forest cover on satellite images is not the whole story: "Collective titling was a first important step in the protection of the territory, but for greater effectiveness, it must be complemented with other processes…The role of local rules and norms in managing natural resources after the titling process should also be studied to understand the mechanisms behind the effectiveness of collective titling" (Velez et al. 2019, 26).

The research presented in this chapter responds to the call of Velez et al., to parse these dynamics, elaborating local norms and mechanisms through an ethnographic comparison of different governance trajectories between two titled communities. It examines the effects on

these communities of years of development and conservation projects and territorial management planning processes, focusing in on their most recent form: the REDD+ project known as BIOREDD+. These case studies reveal a counterintuitive finding about what it takes for collective titling to support reducing deforestation. I find that the Community Council, Los Cocos, that worked most with development aid organizations since its founding and focused on developing and implementing a structured forest management plan with a series of clear rules, was unable to prevent those from the outside exploiting their resource base. Ultimately, this contributed to a rise in deforestation in the community, including that caused by outsiders who came in to cut mangroves, mine gold, and grow coca. However, the neighboring Community Council, La Hormiga, that prioritized the protection of the community from outside forces, carefully planning how it interacted with and used external actors (including development actors), was better able to conserve its forests by keeping activities that drive the greatest deforestation at bay — even without having a strict territorial management plan or forest harvest plan in place.

This chapter explains how the early pathways for managing their territories chosen by the leaders of these two river communities (heretofore referred to as "Rivers", as in the local practice of describing the collective of villages situated along one river within one broader community as a "River") brought them to distinct outcomes, with a close look at how BIOREDD+ has fit in to these trajectories. The work is based on key informant interviews, household surveys, and ten months over the course of two years spent living with people of the two Rivers directly after the end of the BIOREDD+ project: Los Cocos, the community that participated in BIOREDD+ and several externally-driven efforts to manage forest harvests before BIOREDD+, and La Hormiga, which, while also interacting with various external entities in the wake of receiving title to their lands in 2000, never attempted to implement an official forest management plan.

7 Neighboring Rivers, Divergent Governance

In conducting field research, there were countless experiences that revealed differences in the governance practices of La Hormiga and Los Cocos, and in particular between the legitimacy of the Community Councils among local people in these Rivers. As explained in detail in Chapter 3, both La Hormiga and Los Cocos were highly engaged in the early 1990s in fighting for the land rights of Afrodescendant communities. Yet by the time I reached the communities in 2015, a chasm had grown in the enthusiasm for participating in local governance processes between the two communities.

In this section, I point to several indicators of this chasm in the data we collected. The first evidence comes from the 2016 survey of the heads of households in Los Cocos and La Hormiga. Second, I show how the difference in the elections for the Community Council representatives in Los Cocos and La Hormiga illustrates this gap. Third, I point to the differences between the Community Councils in managing outside pressures, particularly from those seeking to plant coca and mine gold with heavy machinery in the Rivers. Finally, I rely on conversations from semi-structured interviews, focus groups, and informal interactions that shed light on this gap. The section that follows will explain the ways that people in Los Cocos and La Hormiga articulated the forces and decisions that led to the differences between the Community Council's legitimacy in each River, with an emphasis on the role of BIOREDD+ and other conservation and development projects.

8 Household Surveys

In late 2016, my research assistant and I trained local enumerators to carry out household surveys in the Rivers of Los Cocos and La Hormiga. In La Hormiga, the enumerators were, consistent with the wishes of the communities, students in the last year of high school. In Los Cocos, the enumerators were members of the village committees, supplemented by those with experience in conducting surveys where literacy was a concern. In La Hormiga, they surveyed the heads of 116 households across three villages — one in the lower sea-oriented zone, one in the middle agricultural zone, and the third in the upper mining zone. In Los Cocos, the enumerators surveyed 131 households across three villages located in these same zones. Women comprised about one third of household head respondents in each community (42 out of 116 households in La Hormiga, 48 out of 131 households in Los Cocos).

Household survey data gathered from Los Cocos and La Hormiga showed a statistically significant difference in trust of the Governing Board among heads of households in (Figure 6.1)(for all survey data on opinions of the Governing Board, see Table A1). The contrasts also held between the communities when it came to participation in the principal Community Council activity: meetings of the Assembly in which the Governing Board of the Community Council is elected. Household heads surveyed in La Hormiga were more likely to say they “Always” participated in the election of the Governing Board, compared to in Los Cocos (statistically significant) (see Table A2 for all survey data on participation in Community Council activities).

These statistically significant differences in the responses of those surveyed in the two villages remained consistent across the survey’s range of other questions about both belief in and participation in the Community Council governance structure, including those asking about participation in village-level elections and in village improvement activities, such as helping set up festivals and maintaining common spaces.

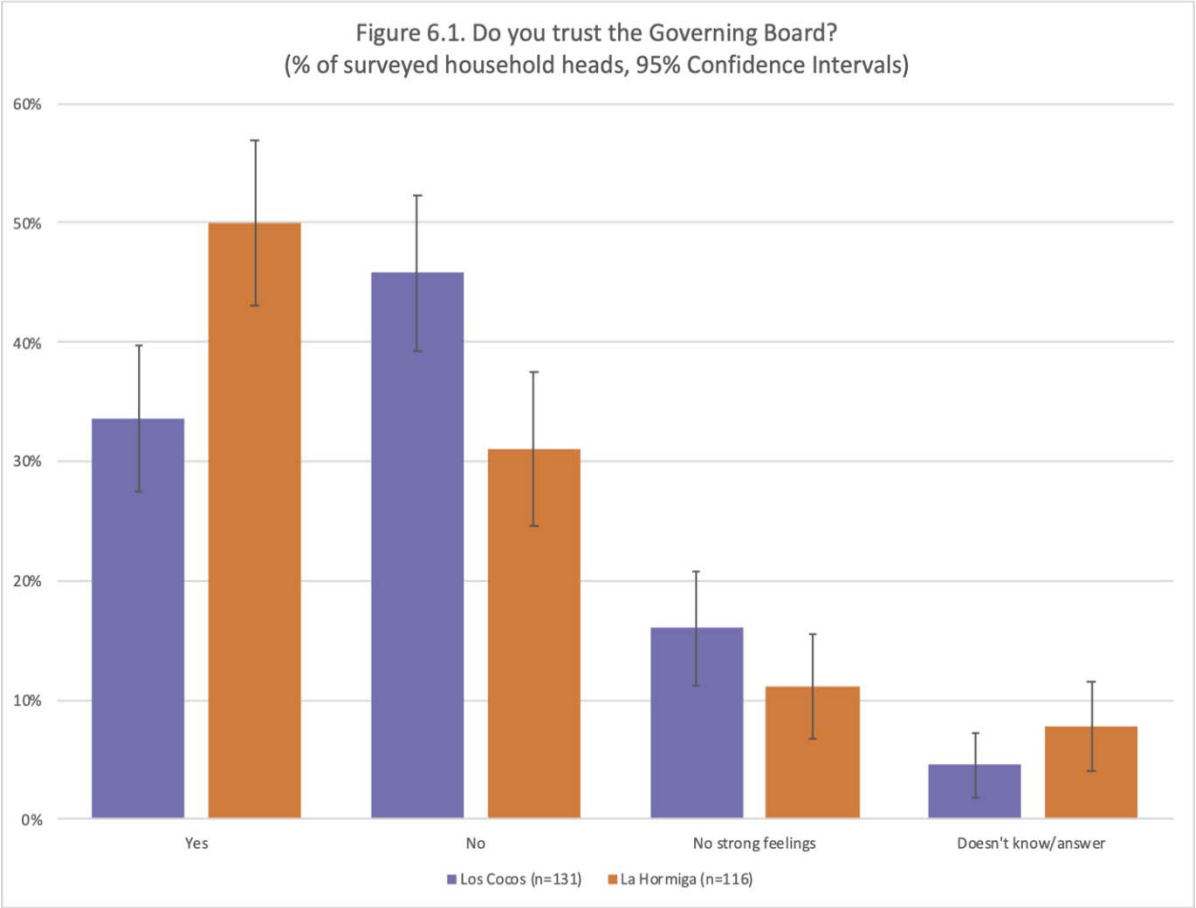
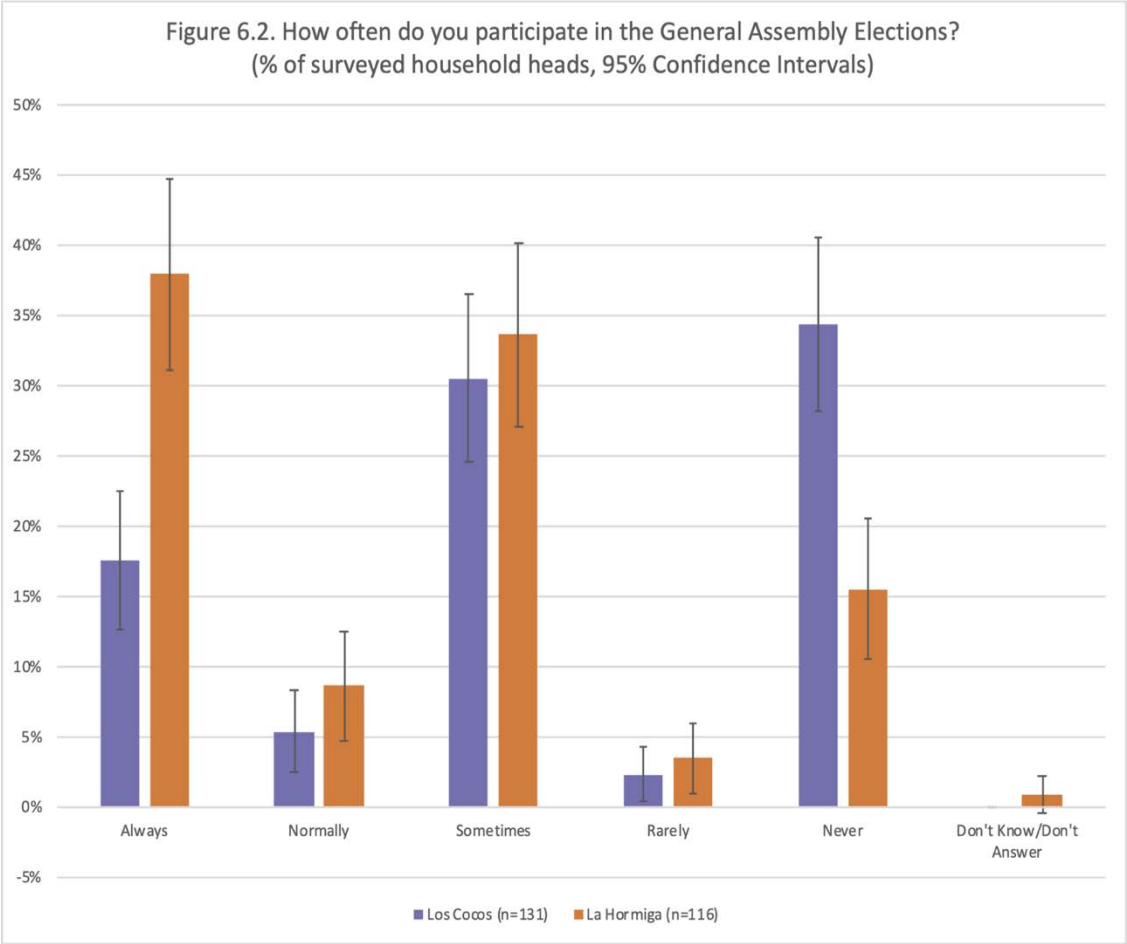


Figure 6.1. Do you trust the Governing Board?
(% of surveyed household heads, 95% Confidence Intervals)
60%
50%
40%
30%
20%
10%
0%
Yes
No
No strong feelings
Doesn't know/answer
Los Cocos (n=131)
La Hormiga (n=116)



9 Elections and Assemblies

The River-wide elections for the Governing Board of the Community Council that takes place every four years is a particularly telling example of this gap. While the surveys indicated a meaningful difference in the participation levels from around the Rivers in these elections, the differences in interest and commitment to these processes also became apparent in observing the practice of the elections.

At the election I attended in 2016, the village schoolhouse at the top of the hill was overflowing for three straight days. Full delegations of a dozen people from all the River's villages made their way up or down River in packed boats. They arrived prepared, ready to discuss the past and future of their territories, and what role they hope the River's governing board will play in that future. Their concerns and aspirations are voiced in song, poetry, and speeches, and they hold dances at night, cementing the social bonds between people from different villages who share the same River, forests, ancestors, and leadership.

This was, according to those I interviewed in Los Cocos, how Assembly meetings also used to be in their own River at the start of the Community Council process: "Standing room only," as one person put it. Yet, I participated in two Assembly meetings of Los Cocos in 2015 and 2017 that demonstrated just how much enthusiasm for the process had waned in the intervening years. The tone in these meetings suggested skepticism and disinterest from community members — and this among the few people who actually went to the meeting. At the first Assembly I

attended, the person who had led the Community Council in its earliest days stood up in the midst of a discussion about a new agricultural project that the PCN, or Process of Black Communities, was proposing to bring to the community, and on which the community was being asked to vote after hearing briefly about it. “This is not how we do this,” he said. “We should have been informed of this weeks ago, and had a chance to study the proposal. We are doing things backwards.” In later interviews, this same former leader told me he had stopped attending Community Council meetings altogether out of a frustration that the new leaders had “lost sight of” their mandate and agreed practices. As I elaborate below, he was not the only previous leader who had opted out of the process.

In the second Assembly I attended in Los Cocos, where a new Governing Board was to be elected, a series of unfortunate events marred the process. The election was occurring nearly a year after it was supposed to happen, as a result, according to the Governing Board, of lack of funds to provide for the gasoline and food necessary for village elections and the full-River election. Yet the delegations from the villages were still small. Only two out of 13 villages had brought full delegations to the vote. Some villages only had one or two people out of the seven or more that were supposed to participate based on community rules. Technically, then, there was not a quorum, but given the other resources that had been invested in the meeting, they decided to move forward with it nonetheless. The meeting had to take place in the schoolhouse rather than the building that had been built for the Community Council process because that building had fallen into a state of disrepair. When it came time for the vote, an argument was voiced by one delegation that the pick for “Legal Representative” of another delegation — an area of the River whose residents often felt neglected by the Community Council processes generally — was against community rules because he was not in the latest community census. The delegations that had put this leader forward angrily stormed out of the schoolhouse and refused to participate in the vote. It was ironic, then, that the results of the whole election were later invalidated because many of those elected turned out not to be in the community census either. As a result, the community was forced to hold another set of elections a few months later, to adhere to protocols require by the Colombian law dictating the governing requirements for the Community Councils.

Despite these struggles, this election did demonstrate that there were community members interested in seeing the Community Council process succeed. A group of young leaders at the first election, several of them children of the former Community Council Legal Representatives, had drafted a joint statement suggesting a path for restoring the strength of the Community Council process. Most of the other participants in the meeting, including the current Governing Board, were there precisely because they wanted to make their community, and the lives of their fellow community members, better. Yet it was clear from these meetings that the process had become quite weak overall, and that the Community Council had lost much of its legitimacy.

This decline in interest in the Community Council process and recognition of the value of participating also became evident in the changes that had occurred in the village-level committees that were supposed to be the bedrock of the Community Council process. Many officials who had supposedly been elected as village committee members expressed confusion about their roles, and indifference to actually executing these roles. Several village committee officials we interviewed described their primary roles as dealing with whatever outsiders or outside projects arrived in the community. One interviewee explained: “The village committee is in charge of those people that arrive. If a boat comes in, the committee has to go to receive those arrived or whatever comes for the community – a project for a roof, bricks. I have to go and

verify that they are giving it to us and note it. The village committee looks out for the community, knowing what comes in and what goes out of here." Another had a similar response when asked what they do as a member of the village committee: "We receive those that come from outside. They might be boats or other institutions and we find them a place to sleep, find somebody to cook for them. We know who does these things, and we find them to help."

Yet according to the internal rules of the Community Council, the village committee was designed to have a much more active role in governing. They would be the constant intermediaries between the villagers and the full-River Governing Board. Among other roles, they would organize community events, tell the governing board what the community needed, and resolve conflicts that arose. While there are members of some village committees that undertake some of these responsibilities today, most of the committee members are, as this former village committee member explained, merely participants "on paper":

> These days they form the village committees and they are no more than on paper. You just don't see that people are working. On paper it says, "John Doe Is on the committee." It seems like this is it now, nothing more. When I was on the committee, we used to have to go out onto the agricultural lands. For example, if there was a dispute over a parcel border, the owner would come to get the village committee to accompany the inspector. We had to receive and organize people, plan out where they were going to stay and who was going to cook, but we also had to do a lot more beyond this. We went to workshops in the city, and then came back to give the information to the community about what we had learned. I even went to Bogotá to represent the community.

This experience contrasts with that in La Hormiga, where whenever our research team wanted to do something in a village — such as conduct a survey or hold a meeting — the first thing we had to do was to meet with the village committee. Everyone knew who was on that committee and would point us to their leaders upon arrival. When we met with the village committee, everyone who was on the committee would come. In Los Cocos, most people, including the elected committee members themselves, were uncertain about who was on their own village's committee.

With people uncertain about what their roles should be, however, it is unsurprising that these elected officials are not fulfilling these roles. Given the lack of trust in leaders and the challenge to get people engaged because of the reasons noted in the next section, it is unsurprising that few have a strong desire to put themselves out in front on the village committees or to sacrifice their time and resources to work for change in their communities.

10 Outside pressures

One important indicator of the strength of the Community Council process is also the community's capacity and willingness to push back against the entry of outsiders into the Rivers. This territorial control was the primary raison d'etre for these communities in the early 1990s. Yet the form and tactics of those trying to use the territory and its people for their own ends began to shift with the entry of the FARC guerrillas into the Rivers, and the push toward coca growing and gold mining with heavy machinery that began at the end of the 1990s. While this was an unenviable position for any community to be in, the way the communities reacted to these challenges speaks to the difference in strength in the Community Council process. These examples of these differences between how La Hormiga and Los Cocos have handled these

strains also help us to understand, in part, why the strength of the two Community Councils differ.

In both Rivers, there were community members who were recruited into the FARC and tried to use this power to exert control in the community and to encourage community members to plant coca to support the FARC. In La Hormiga, a hard line was taken against the entry of this coca. Leaders recognized early on that, despite the potential economic benefits that planting coca could bring to individual community members, its ecological and social consequences would be disastrous for the community. When La Hormiga's Community Council leaders were alerted in 2007 to the cultivation of coca in their territory, they organized a group work party in which hundreds of community members traveled to the area where the coca was planted and pulled out the plants by hand. The leaders brought in local media to film their rejection of the cultivation of "coca for illicit use" in their territory and broadcast it to the world. Nearly a decade later, when some community members had been left worse off economically by the departure of the FARC, and began to consider planting coca again, a community Assembly was organized to vote on whether they would allow coca to be grown in the territory.

Each village's delegation stood up to share their thoughts on the matter. The community members who were interested in allowing coca had formed a group called "Better Life," and its leader shared why they wanted to be permitted to grow coca to improve their economic well-being, and the manner in which they would do it to make it different from the coca cultivation in other Rivers, controlled by armed groups. Leaders from other Rivers were brought in to share the effects of coca growing in their territories. Representatives from the National Parks and from the Process of Black Communities were there to accompany the community. Unsurprisingly, the proposition was rejected. But Community Council leaders did make commitments to enhance other economic options for the community members in need. Several potential collective projects were discussed at the meeting, including beginning a farm to grow *lulo* (solanum quitoense) for sale in the city. The idea was that this farm could be collectively managed by those of the "Better Life" group. The farm was up and running two months after the meeting, though at least one of its intended managers had been recruited into guarding coca farms in a neighboring River – a much more lucrative, and far more risky, form of employment.

La Hormiga's Community Council has taken a similarly hard line against the entry of heavy machinery for gold mining in the River. In 2012, someone from a neighboring River tried to sneak a machine into the River with the help of a community member responding to a lucrative possible return on his assistance. As soon as word got out that this machine was in a tributary of the River, its manager, a man from the department of Antioquia, was quickly driven out with his machine by a group of a few dozen community leaders, who had quickly organized themselves to confront the intruder. Despite the promises of the owners of these machines to benefit the community with their capital investments, the Community Council leaders have always judged the costs to the community of deforestation, water pollution, and social ills to be too high, and the benefits to those in the community too low and too concentrated, to allow this. This interpretation of the costs and benefits, and the narrative of the collective rejection of the excavator circulates widely within the community. Every young person knows about these foundational events, comprising a key part of identity formation, and give young people a sense of direction, as well as a sense of pride in and enthusiasm for the role of the Community Council and their agency within it.

The contrast to what has occurred in Los Cocos with these activities is stark. Coca planting has never been spoken of in community meetings, but everyone knows that some of the

population is growing coca and beholden to the groups that control the trade in the region. According to an early leader of the community organizing process, coca planting has contributed to degrading trust among people of the River. Many are opposed to their neighbors taking part in this activity because it puts their own livelihoods at risk. The Colombian government, with support from the United States, has sprayed crops along the Riverbank from the air with glyphosate – a known carcinogen, according to the World Health Organization -- on multiple occasions. Several people in the River told me that there were no coca plants where the "fumigation" (the local term used to describe the spraying) took place but say that many families experienced loss of their corn and plantains as a result of the spraying.

Gold mining with heavy machinery has also worked its way into Los Cocos in contrast to being knocked back in La Hormiga. As Los Cocos' Legal Representative at the time describes how mining entered his community, a community member who had previously been part of the FARC and had connections to mining groups through this link (the FARC also benefitted from taking a percentage of mining profits from mining with heavy machinery taking place anyplace they controlled) helped outside wildcat miners to bring two excavators into the River in 2011. When it became known that these machines were in the River, an Assembly was called to which 400 people came, most expressing their opposition to mining in their River. Mining with this kind of equipment was clearly against Los Cocos' internal rules. Shortly after this Assembly, however, the President of the Governing Board, who was most outspokenly opposed to the mining, went missing, along with her husband. Men had come by boat for them to take them from their home in the early morning, and they never returned to their nine children. Their bodies were never found.

Though nobody can say definitively that the leader's murder was a result of her stance against mining, this was certainly how it was taken by the rest of the community. The Treasurer and Legal Representative, also having been threatened, left the River to seek some protection in the city. The next week, one of the individuals supporting the project brought to the Legal Representative a list of signatures of those community members supposedly supporting mining from the River. The Legal Representative told the petitioner he was unconvinced by the number of signatures. The next week, the same person returned with a list of 2000 signatures. Several people reported to me, unprompted, that these signatures were obtained under duress — though the death of the President presumably for opposing mining only days before alone ought to have undermined the legitimacy of these signatures. The Legal Representative was under pressure, too, however, and justified his decision to stop opposing the entry of mining with this list of signatures. The goal of this charade seemed to be to bring some veil of legitimacy to the process in which these wildcatters entered.

This charade was carried on by the sign the mining "company" posted outside the area they began mining suggesting that the operation had legal approval from the government, and by the "agreement" the mining company reached with the community to provide them royalties. Under this agreement, 10% of profits from the mine were to go to the landowner, and 6% to the Community Council. However, the director of the committee tasked with managing the relationship and funds royalties from the mining company was also later murdered. People attributed this to his role in both overseeing the use of the mine royalties, and his role as an "Inspector" for the state in the community. The Inspector we interviewed told us he had no intention of getting involved in the mine as a result.

These distinct experiences show how debilitating a threat, followed through on, can be for a community. In contrast to the pride that community members have from retelling the story of

keeping the excavator out of La Hormiga, in Los Cocos, the incident of the excavator entering is told quietly with the opposite effect, warning leaders not to stick their necks out.

These experiences demonstrate the importance for rural communities of developing a united front in the face of outside threats. By the time these Rivers were facing these threats, this front had been slowly built up over twenty years in La Hormiga. Los Cocos, in contrast, was more divided, with most people not participating in the community governance process at all. In La Hormiga, a long history of preparing young people throughout the River to become leaders, and an insistence on dialogue with armed actors who surrounded them, kept these actors from dictating the terms of their presence. The fact that no sitting member of the Governing Board has been killed over the twenty years in La Hormiga was by no means guaranteed, and the most powerful leader had to go into hiding several times after facing threats from different armed groups. The people of La Hormiga have not fought back with arms, but rather with the power of being adamantly non-partisan and refusing to give legitimacy to these groups. The breadth and strength of people willing to step forward to defend their territory — and the assurance that, as several leaders explained, "if they kill me, they know that there are a dozen more people like me in the River willing to take my place" has made La Hormiga famous for their resistance in the face of extreme pressures (Semana 2017).

11 Community Council as Junta Fallacy

Indicators of the difference in the legitimacy of the Community Council in the two Rivers also appeared in more common daily interactions. In Los Cocos, for instance, many individuals referred to the Governing Board of the Community Council as "the Community Council." In contrast, this error was much less common in La Hormiga, and I even heard several young people correct themselves after accidentally using this phrasing: "We are ALL the Community Council," they would say, "We have just chosen the Governing Board to represent us." I once heard the president of the Process of Black Communities refer to this as the "Governing Board as Community Council fallacy."

While this verbal slip may have been just that on the part of the Los Cocos community members, it was pervasive enough that it seemed to suggest that this was the common belief in the community — that the Community Council and the Governing Board were synonymous. This framing therefore negates the original more direct democracy design of the Community Councils, in which the Assembly, which included all members of the community, was meant to be the ultimate authority, to which the Governing Board responded. This language could be self-reinforcing, distancing community members from the work of governing every time they used it.

12 Working around Community Council

Another indicator of a lack of legitimacy of a particular institution is when individuals within a community take on the roles of the institution without the knowledge of those in the institutions or take actions that openly contradict this institution in external contexts. An example of this occurred in Los Cocos when the Governing Board decided, after little community consultation, that it would move forward on direct negotiations with an oil pipeline company about a pipeline that would cross its territory. A community member who had previously served as Legal Representative for the community, dismayed by the possibility that this "assassination project" (in his words) might move forward, decided to represent the community in discussions among other Afro leaders to implement a joint opposition strategy for the proposed pipeline. The leader revealed in an interview with us that he never consulted with his community's Governing Board

about this. He explained that, though he was hesitant to criticize the current Governing Board, he was also very concerned that they were not taking what he saw as their primary role – territorial defense – seriously enough. This, in his argument, justified working around them when the future of the community's fishing access was at stake.

Los Cocos community members also showed their lack of trust in the Community Council when they called upon outside organizations to assume the responsibilities normally granted the Governing Board. This need not be so extreme as a coup, but these actions can lead to governing authorities ending up with authority only on paper. Over the course of my time working in Los Cocos, two prominent instances of community members demanding that the Governing Board and Community Council step back from their usual roles to hand over authority to outside figures occurred.

The first took place when a project from the state designed to support micro-enterprises entered the community. After conducting a survey among community members to find that the Governing Board inspired little trust in the River, especially in matters involving the management of funds, the central government agency running the project said that it would only provide the project to the community on the condition that the Governing Board not manage the money for the project and that its members not appear as leaders of the project. In an interview conducted as that project was wrapping up, a husband, who had served on the Governing Board in the past, and wife, who had participated in the project, described what had happened with the project governance:

> Husband: Seeing this group (from the state development agency) alone -- I, as a leader -- Well! When we were running things…there was always a member of the Governing Board there, accompanying, as this was one of the things that inspired confidence among the community – that a member of the Governing Board was there, along with the people from outside, so that if those folks said something that people didn't understand, then a leader would explain what the deal was. I think that when an outside entity comes into the territory, it should be accompanied by a member of the Governing Board.
>
> Wife: Well, they (the project team) arrived alone, but it was justifiable because before coming in, they began to investigate how the (Community Council) process was here. So, based on that investigation, they decided not to align themselves with members of the Governing Board because if community members saw them going up and down the River with the Governing Board, they wouldn't trust them and they would think they were pure "talk" and weren't really going to work…So they decided, no, we need the approval of the Governing Board to enter, but we can't travel with them because the population isn't going to trust us. And I tell you, if these people had worked with the Governing Board, things wouldn't have worked out as they have because the Governing Board here is very manipulative, they throw off the whole process.

Six other interviewees, including members of the Governing Board and the project staff, repeated this story. Community members suggested that this had been the most effective development project that the community had seen recently precisely because it did not go through the Governing Board. Given that the Governing Board in its original conception was designed to serve as the intermediary for Afro communities and as protection from ill-willed outsiders.

The second instance of this demand from below for an alternative authority came a few years after the community had, as described above, allowed the entry of two outside companies to mine for gold along the River banks and alluvial plains of the River using excavators. The first

mining company that entered negotiated with the Community Council, through which it was determined that the company would provide six percent of its profits to the community for various projects. Three years later, two members of the Governing Board gave away much of the six percent earned in an ill-advised loan to one of the companies to fix a excavator – a loan never repaid after the company instead took the excavator and funds to another River. After learning that they had not been consulted and that the money had disappeared, incensed community members voiced their support for the mining company directly handling the community's portion of the mine's production, rather than allowing it to pass through the hands of the Governing Board. Thus it was that the mine manager from the Andes, already making off with 84% of the community's gold resource value (10% of earnings went to the owner of the land of the mine) was entrusted to better manage the 6% of profits going to the community than the local institutions directly elected by the community. The charisma of the mining company's manager, and the implied force that he represented, combined with the material benefits he was bringing to the people of the community – an archetypal patron – gave him greater local legitimacy as an authority in the community than the Governing Board. These benefits included not just the improvements in the churches made with the mine's royalties, but the opportunity for people to gain some money through mining in the pits: and to spend those proceeds at the disco-tech and related activities (including, according to three different interviews, sex workers). The mine manager called himself the "black paisa" – a term for those from the Antioquia region, but also used locally to refer to anyone who was white and from outside of the community.[35] It would not be surprising if this Manager also contributed to sewing doubt among the local populations about the trustworthiness of the Community Council, since it was clearly in his material interest to do so, undermining the one power in the community that was on paper to hold him accountable to his commitments to the community.

These incidents are suggestive of a weakening of the Governing Board's capacity to carry out two of its key mandates from the state: development and territorial defense. The general lack of trust in the leadership that these examples reflect, and the declining conviction among Los Cocos community members of the importance of the process, has bred a lack of engagement in the process by community members. This creates a positive feedback loop in which fewer people participate in meetings and rumors spread more easily, as a smaller and smaller segment of the population attends meetings. The sense that a few community members are reaping the profits of projects coming to the community also becomes a self-fulfilling prophecy, as those who keep coming to meetings keep receiving new benefits. Most important, the whole deliberative democracy process breaks down where only a few people are speaking for a diverse River of a dozen villages with different needs and desires.

10 Summarizing relations with the Community Council process

While every person had a unique relationship and history with the Community Council process, our interviews and surveys suggested that attitudes about the process might be categorized into the following rough boxes, each of which is elaborated below:

- Disengaged or indifferent
- Disengaged and skeptical
- Disengaged and alienated
- Engaged but frustrated

[35] One can find the vallenato videos made by the black *paisa (el paisa negro)* on YouTube by searching under that title.

12.1 Disengaged or indifferent

There were a variety of people who fell into this category of simply not being engaged in the Community Council process. Many of them were older people who had already been older when the Community Council process began in the 1990s and struggled to participate in it for a variety of reasons. Many of these people I spoke with had not heard of the Community Council or the Governing Board or could not therefore say what they did in the community.

Others who maintained their distance from the process were entrepreneurs focused on earning a living with little time to devote to the governing process, commonly also accompanied by a professed distaste for "politics" – perhaps also because engagement in local politics, or taking sides in the River's divisions, could undermine their business efforts, which required staying friendly with everyone in the River.

Still others who stayed out of the fray were those who had been living outside of the River during the early 1990s, for school or work, and had moved back but never fully engaged with the process since.

12.2 Disengaged and skeptical

Many young people in the community might be categorized as disengaged and skeptical, professing to not understand the purpose of the Community Council. They were born after the community had already received its collective title to the territory, so had never been part of the initial fight and did not recognize that there was work to make tenure on their land more secure. Televisions and large speakers blaring Vallenato music from the Caribbean region, powered by equally loud diesel generators, had replaced storytelling for evening entertainment around the time they were born, reducing their exposure to the stories of their elders from those early days in the fight. Additionally, the land they lived on did not mean as much to them as it did to a generation before them. Many of the youth we spoke with had a more outward-facing orientation. While they professed to love their community, they also were ready to leave if they could find a job outside. They saw living in the River as a fallback option, or safety net – something they could do if they couldn't get a job in the city. Reflecting the fact that their parents' subsistence means of life was out of sync with their own ambitions, many students professed to us that they would be embarrassed to post photos of themselves working in their family's field on Facebook.

The skepticism about the process among many young people in Los Cocos came also from seeing and hearing rumors about the ineptitude of the Governing Board, and because they saw the lack of support that the rest of the community provided to the organizing process. As one recent graduate from the local high school argued, "It would be good to be a leader in a town that listens, but in a town that doesn't listen and that skirts around the rules?...Here the people don't like to participate in the things of the Community Council because they think the…leaders there work for 'their pocket.' So, that leads each one of us to work for our own basket (benefit)."

This notion that all Community Council leaders were in their roles to benefit financially was a common sentiment among those who were disengaged from and skeptical of the Community Council process. One young leader we interviewed told us that he had stayed out of politics because he had heard these rumors. Eventually, though, seeing that things needed to be done in his community and angry that these rumors might be true, he decided to see for himself what was going on internally and got himself elected to the Governing Board. He realized in the process that things looked very different from the inside than the outside, but he wasn't sure if he would stay on because of the unpaid work it required.

This young leader's experience pointed to another element of the Community Council's legitimacy: those closer to the process generally had more faith in it. Those young people who lived in the "seat" of the River, where most of the Community Council meetings took place, were much less critical of the process, and professed much greater interest in becoming leaders. This "seat" is in the middle of the River and is therefore a natural place for meetings to take place. This phenomenon of more enthusiastic youth there may have derived from these young people spending their lives seeing the process of governing in action in their village, because they were more likely to have family members involved in the process. A disproportionate number of Community Council leaders over the years had come from this middle section of the River. Or their enthusiasm might have come from the fact that they were more likely to have participated in events for youth leadership hosted by the Community Council.

In La Hormiga, in contrast, a constant effort among the River's leaders to keep young people in particular engaged in the governing process translated into a much greater enthusiasm and knowledge about the Community Council. Youth committees from each village attend the all-River Assemblies. The River's leaders set up regular youth leadership training and exchange opportunities within the River. One of the greatest helps to training the next generation of leaders in the River was having local leaders themselves be teachers in the village schools. While this reflected the value that leaders put on education, it also gave them space to emphasize and value the particular skills that their society needed in the classroom. This also allowed these leaders to get to know most of the young people in the River. In every village in La Hormiga, there were teenagers keen to talk about the importance of the Community Council and recount its history — much of which they had not personally lived. Many talked about their personal ambition to leave the River to gain additional education that could them help them be more effective contributors to their village and River. Others spoke proudly about wanting to stay in the River, much preferring the challenges of River life among their community, to the indignities, exhaustion, insecurity, and isolation of city life. Local leaders were cultivated among those who succeeded academically and were able to go on to additional education in the city, as well as those with had leadership skills and wisdom, but little formal education. As a result, a constant stream of new leaders developed out of every village in the River, and these were all engaged with the Community Council process.

12.3 Disengaged and alienated

One of the greatest challenges for the Los Cocos governing structure is that many of the community members who were enthusiastic participants at one point have since decided not to participate, feeling alienated from, or worn out by, the process at some point since its beginnings in the late 1980s. Nearly universally, these individuals refer back to the excitement of the period leading up to the 1991 Constitution and Law 70's passage in 1993. They speak of how, having heard from a Catholic Priest about the possibility of the Colombian State taking away their lands, they organized themselves to fight for state recognition of their customary rights. Without any resources to bankroll this fight, they would paddle their canoes for hours along the River, and sometimes even to other Rivers, to attend meetings. Each attendee would contribute food from their part of the River for the meetings. They would even paddle days to go to other Rivers or to the city for meetings. More than one interviewee told us they had alienated members of their family through their commitment to the cause, being away from home for so long.

The motivation to unite toward a common larger cause had understandably declined since they had achieved the central goal of their initial movement — the community land title.

Rallying participants around a new shared vision and purpose after success in the movement's most tangible goal proved difficult. Perhaps an even greater challenge has been governing a community that has never really been governed before, especially when mandated to design and implement "autonomous development" in a rapidly-changing world that throws at the community members obstacles to controlling their own destinies at every opportunity. As will be elaborated in more detail below, some blamed this declining energy on the external resources that came in to support the community in getting title to its land. Leaders began responding to development corporations instead of to their own people, and the circle of community leaders closed in around these resources. When this shift happened, many who had been enthusiastic at the beginning felt they no longer had a voice in the process, despite all the sacrifices they had made for it, and many stopped going to meetings.

Women had their own frustrations with the process. One woman we spoke with had been the secretary for the Governing Board from the beginning of the organizing process, and later became the treasurer, but today was hardly involved at all. While she at first said it was simply because participating made her "tired," she later confessed she had not seen eye-to-eye with other members of the Governing Board, some of whom were asking her to approve procedures that made her uncomfortable:

> I resigned when I started to see different things. If the three of us here do some work, I don't think that you two should do something that I don't know about, if we are all in it together. We used to go to Buenaventura all together as a Governing Board, but then sometimes two started staying behind there all alone. I didn't like those things because I managed the money…If I put my signature down and afterward there appears a fraud and it's not my fault, how am I going to say it wasn't me if I put my signature down? I don't like it when I am responsible, the visible head and those that are here want to do something different to put me in danger. Because of that I said, "I am resigning, I cede the space."

Other women who wanted to push projects forward felt underutilized and became disillusioned by the process as a result:

> I was on the village committee. I told the leader of the Governing Board, "I want to be on the committee, but I want to do something, work in a group. We see what is bad – now what can I do to help?" He answered me, "In this administration, we are going to get this community ahead." So I stayed on the village committee. When I really saw it, though, the Governing Board just had the village committee cooking…We were there as a committee only on paper. So I said "I'm very sorry about this, but I am not going to participate if this is what is going to happen. I want to be on the village committee, but not just a paper village committee – I want to do something. There are lots of things here that we women can do"…From there I left.

Other key leaders for the first fifteen years of the Community Council were alienated by newer members of the Governing Board, feeling their opinions and experience unvalued. The first Legal Representative of the community told me that he had never been consulted by the new committee members, and he was clearly offended by that. The fact that the person who was most active in the new Governing Board, the President, had only grown up spending summers in the River made people see him more as an outsider, and in some sense he was: perhaps someone with a better sense for the politics of the role would have consulted with those older leaders right away. Like the leader who represented the community without the Governing Board's consent, the previous Legal Representatives had also decided to no longer participate in the process,

exasperated by what they saw as a dereliction of duty by the newest Governing Board members. Several community members noted that these leaders' decisions to not participate directly had contributed, in turn, to further weakening the process overall, as it led to a loss in institutional memory, and a further erosion of the enthusiasm that initially carried the process forward.

La Hormiga differed markedly from Los Cocos in this respect, as all earlier leaders in the process stayed engaged in governing. They participated in Community Council Committees, including the Environment and Cultural Committees, or in the "mother" ethno-territorial organization that was intended to guide the Community Council. While these organizations existed on paper in Los Cocos, they rarely convened, and several people described them as "dead" or "dormant". In La Hormiga, those leaders who had left the River also remained engaged in the governing process, with a separate committee based in Buenaventura dedicated to attending external meetings, raising funds and other forms of support for the community, coordinating with other Community Councils, and negotiating on behalf of those in the River with the government.

12.4 Engaged but frustrated

Those who are engaged but frustrated are typically those who recognize the importance of the Community Council process but are dissatisfied about the way it is going despite their contributions. They recognize the threat to the territory that comes with disengagement, and therefore contribute as they can, despite the time and costs to get themselves to and from the meetings. These people also tend to be those that receive benefits from various development projects, as they are those who attend meetings and know what is coming to the community. The fact that these individuals tend to benefit more than others is one of the factors that makes others cynical about the process. These individuals may express disapproval with particular actions of the Governing Board, but they also recognize that they themselves must stay engaged to both support this Board, hold it accountable, and reap any benefits it may bring into the River.

Many members of the Governing Board itself fall into this category, quick to point to the impossible role they are in in their unfunded, overly demanding positions. Their work is made more challenging every day by threats to their lives (see below), and they wish for greater support from the rest of the community in carrying out their mandates. This support would include stepping up to take on various tasks that need to be done within the community, taking more ownership over projects, and developing more village-level efforts to support the needs of local peoples. Sometimes they point to the weaknesses of the other members of the leadership team around them as a source of frustration.

These individuals expressed frustration about what was occurring in the River and the way the Governing Board was handling certain issues. Some were annoyed that the latest Governing Board had not brought in more development projects and infrastructure, some were concerned about the mismanagement of funds by certain members of the Governing Board. Some expressed exasperation about the lack of information flow between the Governing Board and other community members and were upset that the Governing Board had not done enough, in their view, to halt mining and timber harvesting.

In contrast, while there were certainly participants in the Community Council process in La Hormiga who were willing to express dissatisfaction with their Governing Board's actions, these comments were few and far between, and generally only shared with us as outsiders, and only then in a rather indirect way, after significant time together. Most of the time, these were critiques that the individuals had shared directly with the Governing Board itself, too, not rumors

whispered behind their backs. During the Assembly meetings, all those attendees who were not community members were asked to leave the Assembly for an “autonomous space” in which these disputes could be had out in the open. As a result, the specifics of all these critiques were largely inaccessible to me.

In sum, despite facing similar pressures and challenges, and starting from a common place of enthusiasm from local people to organize, the Community Councils of Los Cocos and La Hormiga, between the mid-1990s and today, have ended up with very different levels of local legitimacy. In the next section, I explain the core drivers of this difference. Conservation and development projects, including BIOREDD+, have, as I will show, turned out to be both a symptom and a cause of these divergent paths.

13 Explaining Divergent Governance Paths

There are many factors that have contributed to the divergent governance paths in Los Cocos and La Hormiga, some of which begin to emerge in the evidence of these differences elaborated above. The fact that threats to a key leader of the Community Council were followed through on in Los Cocos is a clear externally-driven factor, as community members shared with us the additional fear they had after that incident to be part of the Community Council, to go about the daily visible work of leading, or to oppose the desires of anyone who might use armed actors to get their way. The leadership gap that this violence created by design then allowed for coca and gold mining to enter the Rivers, which made governing yet more difficult.

Yet the divergence in enthusiasm among community members for the Community Council process occurred years before this incident in the telling of many community members, and the externally driven goal of sustainable development has had an important part in this tale. How have conservation and development projects shaped the local legitimacy of the Community Councils in each River? Our research suggests that projects have unintentionally undermined the Community Council process in Los Cocos, having failed to learn from the three lessons described above that other authors have seen in the titling, decentralization, and conservation and development projects of the past. The Governing Board first became accountable to outside actors over community members thanks to the presence of these projects early on, as leaders became beholden to the organizations that funded projects in the community, rather than to the individuals they represented. Second, these projects undermined governance structures and displaced local practices, particularly through technification that made projects difficult for local people to understand or adequately participate in, monetization, and a narrowing of vision about development to “projects.” Third, funding for these projects in particular has contributed to a break down in social capital among community members, generating a vicious cycle of disinterest and distrust in the community governance process.

While the team of aid professionals designing and executing the BIOREDD+ project attempted to learn from mistakes of the past, BIOREDD+ ultimately exacerbated the unintended consequences of the previous projects while generating new challenges.

14 Discretionary Power and Outward Accountability

One challenge for all Community Councils from the start of their creation was that of developing discretionary power without any source of funding for their priorities or even for the basic functions of the governing processes. Local governments, which had recently been decentralized, saw them as competitors in some sense, and did not want to have to fight for their resources. The only chance these Community Councils had, then, to fund their work was through aid projects

that came with many strings attached. This turned out to be a trap in some ways, providing the illusion of giving Community Councils more power via greater resources while in reality dictating what the Community Councils were permitted to do. This led Los Cocos to share the common experience of many governance bodies receiving external funding wherein local leaders put more resources into responding to the needs of the external entities than to responding to the needs of their own people. While this has long been a problem, the increasing emphasis in the aid world on accountability to the taxpayers funding this aid, this has in turn multiplied the burden on the NGOs they fund, the technicians those NGOs contract, and the communities these NGOs and technicians work with (Agyemang et al. 2017; Mkandawire 2010; Shore 2008) (Ebrahim 2003). Even selfless leaders seeking the best for their communities today may struggle to please donors, seek additional funding, fulfill their other duties as a representative, and take the time to listen and respond to the needs of those they are in theory representing.

The emphasis on external accountability that some Community Councils, including Los Cocos, fell into, emerged in part from one the key roles for the Community Councils as described in Law 70: to promote development in their communities. The Process of Black Communities had pushed for this to be "autonomous development" which meant that each community would find its own path based on its priorities. In La Hormiga, the effort to shape this autonomous development path was very deliberate, with community-wide discussions about each potential project that could have larger implications for the community. Many projects or offers of funding were rejected as they passed through this community filter.

Los Cocos had a different process of defining a "development" path. From the start of the Community Council formation, the leadership of Los Cocos began working with the Swiss development agency, SwissAid. They were encouraged to do so by their Assessor, an Afrodescendant lawyer based in Buenaventura who was assigned to work with Los Cocos in the mid-1990s to help them through the bureaucratic steps required to secure a title from the state and formalize the Community Council. It is notable that in Los Cocos, community members have brought up their Assessor in numerous conversations about the process of developing the Community Council, while in La Hormiga, the person with the same role there has never been referenced.

In Los Cocos, the Assessor, according to two informants, participated in community meetings until around 2010. Some viewed her presence as driving a wedge between community members. She was a great help to the original leaders who worked with her, as she guided them through the steps to get their titles. While she did not reside fulltime in the community, she was there accompanying the leaders regularly. Some perceived her as having too strong a role in shaping the direction of the Community Council, and ended up making the leadership circle exclusive to those with whom she had a relationship and, as one respondent put it, "could control.". One interviewee called her presence and control of the community organizing process "damaging." Another recalled how the Assessor refused to allow a boat recently purchased by SwissAid for community leaders to be used to take a child with appendicitis to the hospital. The nurse who shared this story told me she was eventually able to find another boat to take the child, who survived. Nonetheless, this latter example was notable for the breach of community tradition in favor of rules imposed from outside, but also because it was the Assessor who made the decision, rather than allowing the community leader to respond to this request. The leadership of the community therefore became accountable to the Assessor, and, following her wishes, to SwissAid early on.

Both the Assessor and the development organizations she encouraged the community leaders

to rely on have all, in one way or another, demanded "outward" accountability from the Governing Board of the Community Council. This has had the unintended effect of distancing this Board from the more immediate needs of its people. This early emphasis on promoting the community among external actors and focusing on learning to meet their demands likely contributed to instances like those we heard about from disillusioned former participants in the Community Council process, suggesting their ideas being ignored by the Legal Representative.

Funding from Swiss Aid arrived to help the community establish the Community Council, and then kept on coming until Swiss Aid began and the Legal Representative of Los Cocos at the time had some type of falling out, the details of which were never revealed to me. The Legal Representative by then had also developed a close relationship with the director of USAID in Colombia at the time, as they had met at several meetings, and was able to begin receiving funds from USAID. This included the purchase of a house in Buenaventura for the Community Council of Los Cocos. USAID has, since the mid-2000s, continued funding projects in the community, including BIOREDD+. This funding helped Los Cocos' leadership find a new purpose after the titling process: to get and maintain funding for internal projects from outside sources.

This seemed to many leaders at the time a straightforward way of fulfilling their development mandate. It also, however, helped these leaders to gain and maintain power in these communities, connect with outsiders, and get their family members paid positions with the projects — a scarce commodity in these communities. While aid organizations never forced these community leaders to adopt their projects, it was not only perceived as being in the community's interest, but was also in the personal financial interest of the leaders to do so. The space for thinking about what autonomous development might look like and how to make it a reality never really appeared for Los Cocos, then, though participating in these "sustainable development" projects was also an easy way for them to check the box of "sustainably managing" their lands in the eyes of the state. It turned out that not only did a steady focus on "projects" divert leadership attention away from the larger political project, but that these aid organizations ended up actively undermining the coordination of this political project, as we shall see below.

These resources also served to inject distance between community members and regional Afrodescendant organizing efforts. Los Cocos and La Hormiga had both been engaged members of the Organization of Black Communities (later becoming the PCN) when it was founded. From La Hormiga, however, there were two community leaders in the core leadership of the Organization that traveled between Rivers to help organize the communities. In contrast, nobody from Los Cocos took on such a leadership role within the PCN. This, perhaps, made it easier for the Governing Council of Los Cocos to declare themselves "independent" from the PCN a few years later when tension arose. The early leaders of Los Cocos and La Hormiga explained that SwissAid had required that Community Councils separate themselves from the PCN and operate independently from one another for the purposes of receiving funding for a particular project. According to these leaders, SwissAid was uncomfortable with the model of working across a group of communities joined together, and had concerns about the administration of funds within the larger group effort. Los Cocos opted to leave the PCN based on the wishes of SwissAid and the guidance of their Assessor, while La Hormiga decided that this was not in their best interest and opted out of the project. A leader from La Hormiga who shared this history with me suggested that this was a means of "dividing the Afrocolombian social movement." While this may not have been the direct intent of SwissAid, this project was an example of an end result

that has appeared in many development projects since. For accounting and administrative ease, and to speed up decision making, aid organizations have sought to work with only one or two Community Councils on any given project, which has the effect, as this leader says, of dividing the communities — even making them compete for resources with one another — and therefore weakening the movement.

Los Cocos' leaders from the late 1990s suggest that they felt like the PCN was trying to control them, rather than responding to their needs. Interestingly, they use a word commonly employed by the PCN to fight for Afrodescendant community rights to make this argument, talking about how they want to be "autonomous." While some leaders of Los Cocos have noted the importance of working with other communities to address particular issues, none suggested that leaving PCN was a poor decision in retrospect.

Yet the PCN is an important place for the leaders of these communities to seek guidance, camaraderie, and strength amidst the constant threats and challenges all of them face. In La Hormiga, this participation in the PCN has led to the widespread penetration across the River of discourses highlighting the links between Afrodescendant and territory, forming the organizing backbone that has both attracted and provided a foundation to a steady stream of strong leaders in the River over the last thirty years. If Los Cocos had stayed in the PCN, might it be more like La Hormiga in this respect? This is impossible to answer definitively, of course, yet the divergence of decisions in the 1990s, which both reflected and reinforced particular priorities of leaders in Los Cocos and La Hormiga, has surely contributed to altering the trajectory of these two communities. In Los Cocos, for instance, one person was elected to two consecutive terms as Legal Representative of the community, between 2004 and 2012, while this would have been unlikely to have happened with the engagement of the PCN, which promoted the spreading of leadership across many individuals and the cultivation of new leaders. In La Hormiga, for instance, the community has put a firm cap of one term for the Legal Representative, precisely to avoid the consolidation of power, and to share responsibilities and leadership across the community. These and other important decisions for how BIOREDD+ landed in these Rivers have been shaped by the communities' different relationships with the PCN.

Finally, the Community Council's lack of total discretion over the territory and how its resources were used was also baked into the wording of the title granted Los Cocos in 1999 and the law that set the foundation for these titles. While the communities with their titles are given "priority" for benefitting from the resources on their lands, the title goes on to note: "Article 21 of Law 70 of 1993 imposes on Black communities with titles for the right to collective property the obligation to continue conserving through an appropriate use, the persistence of especially fragile ecosystems such as the mangroves and wetlands…" (INCODER 1999). The title goes on to say that "It is considered convenient that the national, regional, and local entities, principally the Ministry of Environment and the Regional Autonomous Corporations (provincial environmental authorities), with responsibilities in the administration and protection of the mangrove forest, formulate, finance, and execute together with the beneficiary communities the Management Plans that are necessary for the sustainable use of the mangrove forests, taking advantage of ancestral knowledge of these communities" (INCODER 1999). The people of Los Cocos both had to prioritize sustainable use of resources in their River and had to coordinate with the government entities that retained responsibility for the environmental outcomes in their River. The next section addresses the implications of this arrangement.

15 Displacement of institutions and practices

Though the Community Council did not receive any funding directly from the state for its operations and priorities, it did have to comply with various state mandates. These included ensuring elections and elected officials met particular standards, registering election results with the municipality, holding a particular number of meetings, and writing internal rules. Maintaining enthusiasm for and investment in the Community Council among community members in its shift to a formal state-recognized institution was difficult under the weight of these bureaucratic requirements.

Also of primary, and novel importance to the state was conservation of these Pacific lowlands by the Community Councils receiving titles. This priority emerged from the new view of the Pacific nationally and internationally as a region of ecological richness with "high conservation value." As a result, the Colombian state, via its provincial-level environmental agencies, and international aid organizations — in particular, SwissAid and the World Bank at first — invested in supporting the development of Territorial Management Plans for these communities across the region. They paid for a forester consultant to work with Los Cocos to manage the organization and harvesting of their forest. This forester from Antioquia worked with the Governing Board to develop a new "Association" of primarily village leaders and woodcutters that would be tasked with mapping the territory's forests and ecosystems, developing a plan for managing different parts of the forest based on silviculture principles, and developing an association of woodcutters that would be in charge of — and benefit collectively from — the sustainable harvest of these forests. This forester worked with communities across the Pacific on the same effort, and there were others like him assigned to do the same work in other communities. Over the course of these projects, they developed forest parcels to measure growth, they organized zones where cutting would be allowed and not allowed, and procedures for who would be allowed to cut and how much they would be allowed to take. They created their own sawmills to increase the value of their product as well, with the idea being that, through strength in numbers they could build additional bargaining power over the prices the association received.

A great deal of money, time, and effort went into developing the plans, including inputs of social, economic, and scientific studies, and into educating community members about the plan. An association of woodcutters was created in order to execute the sustainable development of forest resources, and the plan designated different use types for different areas of the territory. One can still find posted signs on trees in the mangroves at the mouth of Los Cocos that designate them as a "Conservation Zone." Yet as an indication of how well this designation has functioned, one can also often hear the sound of chainsaws when boating by these trees, and see, sometimes within 50 meters of the signs, mangrove wood neatly stacked for collection for commercial sale in Buenaventura. A meeting I attended between the state environmental agency and those who cut mangrove in the community illustrates why an elaborate conservation plan did not translate so easily to changing actions: "What else do you expect us to do? Are you going to pay to feed our kids?" Some went further to insinuate that if they failed to meet the quota expected of them from the buyers of wood in Buenaventura, that there could be dire, even deadly, consequences, for them and their families. The Territorial Management Plan remained alive only on paper, though it drained time and enthusiasm from all involved, and consumed the organizing process during its creation. Those who had been involved with the creation of the Plan were frustrated by the lack of adherence among other members of the community and held out little hope for the possibilities of bringing the community together around common goals in

the future. One leader who had dedicated years to this planning process and the association of woodcutters described the issue in the following way:

> The Association was born around 1998, when SwissAid was here…Most of the Association was made up of the Community Council Governing Board. For four years we worked on this, because it wasn't the Governing Board who designed this, but all the people of Los Cocos. The people of Los Cocos accepted it, evaluated it, spoke about it, but these days how things are…it's like a tree in the autumn, when it molts, and the leaves fall, and sometimes it can't stand the autumn too much and it dries up. This is what has happened. As I see and understand things, maybe we are too busy with our household needs, the River economy, people aren't following through anymore because, "what are we going to live from?" – this is the thing that we are always saying. If something is prohibited to me, I say, "What am I going to live from?" They take the spoon out of my mouth and I get angry…So this is happening here now. It could be that some good leaders can overcome this, but there is great distrust in these Rivers, in us leaders, too…nobody believes in anybody.

The wife of this leader, one of the most involved in the creation of the Territorial Management Plan, went on to argue:

> The problem is that the mind of those from Los Cocos is like rubber: it stretches and shrinks. So, we are in agreement with one thing, and after, we are in disagreement. We don't agree about whether we are fighting for this, or if we are going to follow through on this or not. If they bring us a proposal, we say 'Yes, yes, we accept.' But then when it is fleshed out people say, 'No, those were just three or four stupid guys that were doing their thing' and everybody falls away and goes back to doing whatever they want. We don't have good coordination.

The Territorial Management Plan process did not just frustrate those who led it; those whose concerns about other topics were set aside during this planning process were frustrated by the nearly singular focus of the organization on territorial management planning to the exclusion of all else. Those who disagreed with the new rules that told them they would no longer be permitted to practice their livelihoods often stopped participating all together – what benefit was there in being part of something that just kept telling them "No?" when they felt they had no other choice? Various members of these camps retreated from the governing process in the wake of this. The Community Council process lost credibility when it failed to get its own community members to follow the plans that ostensibly they themselves had agreed.

La Hormiga, in contrast, never developed one of these territorial management plans. As the leaders of the community described countless times, they did not think about managing their lands according to some prescribed western method based on years of study, but rather following the practices they had learned from their ancestors — including the same traditions of Los Cocos of only cutting on certain parts of the moon cycle and seasons, taking Sundays and holidays off, and cutting only larger trees. Passing through the mangroves of Los Cocos with a young leader from La Hormiga one day, he leaned over to me, pointing at a cut mangrove tree, and said, "Sometimes I am sad we don't have such a beautifully studied and written plan for managing our forests as Los Cocos. But at least we still have our mangroves and forests intact."

This Territorial Management Plan process was just one of a long string of projects for managing forests brought in from the outside, of which BIOREDD+ is only the most recent. The conflict between the pressures from outside for the communities of the Pacific to show that they were meeting their mandates for promoting sustainable development and forest conservation, and

actually investing in meeting the needs and interests of those in the community, did not stop these projects from continuing. Any project failings were explained as market or technical failures, and new projects were adjusted accordingly. Directly prior to the start of BIOREDD+, from 2006-2011, USAID's "More Investment for Sustainable Development" (MIDAS) program ran alternative development projects around the country, including in Los Cocos, with the ultimate goal of creating "viable alternatives to coca production" (ARD 2011). MIDAS attempted to get Los Cocos to develop specific zoning and harvest rules for 34,700 hectares of the local forest, including a 7000 hectare "reserve" where no cutting was supposed to take place. The idea was to create a River-wide wood cooperative, which would control harvests and bring a better price to those cutting wood. The Assembly voted to participate in the project, and the leadership of Los Cocos dedicated several years of meetings to develop the studies to underpin an elaborate 172-page plan for how to manage their forests. This plan, which built on the Territorial Management Planning process, was presented at the end of 2008 to the state environmental authority. All that was needed would be for the community to adhere to the new plan. This was not to be.

While community members have verbally expressed a desire to advance forest conservation over the years — prompted, perhaps, by the education components of the projects, or perhaps recognizing that their title is predicated on their conservation efforts — few have been prepared to spend political capital or destroy friendships by restricting an activity that has deep roots in the River, and, in the process, squeezing community members in precarious economic positions. After all, tree harvesting had been the most important source of income for people along the River for the 50 years leading up to the land titling process, and tree harvesting had not resulted in any clear damage to the inhabitants of the River.

Though leaders and communities have spent countless hours developing these detailed plans, and millions of dollars have been spent on consultants and contractors to develop inputs to these plans, only the institutions that had long governed the harvesting of trees in both Los Cocos and La Hormiga continued to be followed locally. Property rules granted the person who "cleaned" a tree — prepared the forest around the tree for the tree to be felled — the right to cut it. The forests on the hillside above a planted plot of land belonged to the owner of the agricultural plot and the owner therefore had the first right to fell those trees. Three rules promoting forest conservation were commonly recognized among community members. The first was that trees should only be cut that are 17 inches or larger in diameter at breast height. The second rule commonly followed is that people from outside of the community cannot come in and cut. Finally, cutting with a certain moon phase limited the time in which people could cut wood. These three fit within the private property regime and make economic sense — trunks smaller than 17 inches across garnered a lower price per board foot in Buenaventura, woodcutters from Los Cocos recognize that allowing people from the outside to harvest in the Los Cocos territory represents an economic loss for them, and they believe that cutting on the wrong part of the moon cycle leaves the felled wood more susceptible to destructive insects.

In some sense the effort to develop territorial management projects overtook all other efforts of the Community Council from the fragile start of this new governance process, and the unelected Association that was created as part of this effort dictated the focus of the Community Council, in the process turning many members of the Assembly who had other priorities and ideas off from participating in the governance process altogether. These continued conservation efforts of the last twenty years have also displaced the other projects and activities that a young Community Council might have undertaken, based on listening to the needs and desires of their

community members, all the while diminishing support for the process rather than growing it.

These projects have also contributed to more directly displacing other community practices. There is a long history in the communities of the Pacific of individuals sharing labor and bartering goods. Work parties would go from field to field to plant or harvest and convene for projects like building homes or other infrastructure. People in the more productive agricultural zone of the River would barter their bananas or taro for fish from down River or paca meat hunted from upRiver. Money was primarily used in exchanges with outsiders, come by through selling local goods to traders, and used for making purchases in the city of critical goods like salt and nails.

This relationship with money was bound to change with increasing integration of the communities with the market economy — particularly a greater desire for outside goods, enabled through more remittances or wealth to partake of these goods. Social norms based on interdependence also changed when money inserted itself into most exchanges, however, which was not necessarily anticipated. This change was a great source of disappointment and sadness for many older community members. Interestingly, this shift was also more pronounced in Los Cocos than in La Hormiga, where community work parties were more regular, and individuals still went out to help one another in their fields. Young people in Los Cocos in particular had come to expect a daily wage for their help in the fields or as a member of a team cutting wood.

According to interviews, two primary forces in Los Cocos accelerated this transition into dependence on Colombian pesos as the primary form of exchange within the River. The first was the arrival of coca production. Young people who work to harvest the coca are paid in wages, and it appeared that this kind of wage opportunity shifted expectations for young people in the community, who told us they would not go to work in any agricultural fields without payment. Coca made up a very small portion of agricultural lands in Los Cocos, however, and many older farmers did not have the funds to pay for day laborers, leaving these young men out of work on most days.

Development projects, which paid wages, emphasized finding external markets for local products, and crowded out the need for these exchanges, have also reinforced a cultural shift away from mutual aid. The example described above of how SwissAid began paying for the provisions needed to have meetings is representative of such crowding out. While this was certainly well-intentioned and meant to ease the burden on community members of having these meetings, some describe this as an example of where the Community Council got off course. More recent projects have attempted to revert to depending on more teamwork among individuals for getting work done, but it seems difficult to convince people to go back to unpaid labor when relationships of mutual aid and exchange have broken down over time. In the case of cacao production under BIOREDD+, for instance, as community members came to recognize the levels of work necessary for maintaining their crop, they asked Fondo Acción for funding to pay wage laborers. Fondo Acción declined. Thus, while conservation and development projects are not alone to blame for this shift in practices and relationships, they have been a key force for changing the means of exchange and practices of mutual aid in the community.

Not only have the projects of the last thirty years crowded out other proposals for Community Council efforts and the practices that served to cement trusting relationships, but these changes have in turn led to what might be considered a crowding out of community members' abilities to even conceive of change happening through anything but an eternally supplied project. "Everything is a project," a community leader from Los Cocos told us in an interview, as he tried to explain the constant refrain we heard around his community of a need for

"projects." We found this oft-repeated desire for projects curious since, often in the same conversations, we heard how most projects of the past had left little benefit behind, how funding had been caught up in the managing institutions or among the community leaders, how people were frustrated at how projects never seemed to benefit the whole River — and recurrently benefitted the same individuals — and how these projects had changed community perspectives about cooperation. Projects, this community leader was suggesting, rather than being one particular form of activity, were simply how people now thought of investments from the outside in the Rivers. These investments were usually those linked to new forms of employment internally — however temporary and however exclusive.

This roots of this *proyecto-centrismo* began to grow before the arrival of significant direct international aid to the communities in the 1990s, or even 1980s under the UNICEF-led portions of the Colombian state's grand "Plan for Integrated Development for the Pacific Coast of Colombia," (PLAIDECOP). Rather, the notion of "projects" as the vehicle for outside investments in the communities might be traced to state-organized rural development projects begun in the mid-20th century as a means to quell unrest in the midst of civil upheaval. In 1958, Alberto Lleras Camargo of the Liberal Party was elected as president of Colombia and the first leader chosen under the "National Front" pact between the Liberal and Conservative parties — an effort to bring stability to the country after a decade of political violence, known simply as "La Violencia" (Palacios and Safford 2002). One of his first actions as president was to begin promoting the creation of "Community Action Boards" (JAC, for their Spanish initials) as a means of getting rural communities to organize themselves and begin providing what they needed locally, with some support from the state: "The JAC were organizations of neighbors from within a neighborhood or village, designed to develop a sense of participation and cooperation. They operated with funds assigned by the state for specific projects: construction of health centers, schools, streets, access to aqueduct and sewage lines. As a shared effort, the neighbors were supposed to organize the voluntary work and provide additional funding, much of which was supported by private organizations from Colombia and abroad" (Palacios 2003, 256).

The goal of these JAC was to create a sense of civic commitment in rural areas, but also for these people to see support from the state improving their lives — it was a program grounded in an ideology of "self-help" that aligned well with the vision of US President Kennedy's Alliance for Progress, the support of which the National Front leaders courted and received (Rojas 2010). Unsurprisingly, these Community Action Boards were quickly entrapped within the country's clientelist politics, with votes for state offices coming to depend upon commitments from politicians to provide "projects" via the JACs. As Palacios notes, ultimately the JAC "administered poverty, without attacking its roots," and became a means for "buying electoral support" (Palacios 2003, 239, 256). Such promises from state politicians for votes continue today, though residents of the Rivers of Los Cocos and La Hormiga suggest that the willingness of politicians to follow through on these promises after elected to office has become more rare, and the disappearance of funds that are meant to support local investments more rampant.

The discourse that accompanied these politicians seeking votes was key in changing these projects and the overall efforts of the JAC from "self-help," to demands from outside actors to provide. This was a key part of promoting the notion in these Rivers that they had been "abandoned" by the state. Politicians started to tell the individuals in these communities that the politicians of the past had abandoned them, and that they would be different — they would be the ones to right the situation. This discourse of state abandonment and the need for new projects

to fill this gap was then taken up by the aid organizations that came to work with the community. The Pacific became labeled not only as a "paradox" — a region wealthy in natural resources, but "filled with poverty" — but a paradox with a cause: state abandonment. Development, via projects, was provided as the cure.

Importantly, the stances that Los Cocos and La Hormiga have taken vis a vis projects have diverged. One of the most important differences in this regard is that the Assembly of La Hormiga voted to disband long-standing village-level JAC as soon as they created the Community Council. In contrast, in Los Cocos, the strongest JAC have continued on, such that villages appear to compete with the Community Council for resources. The leaders of these JAC suggest that they are not in competition with the Community Council — that the former works to secure resources from the local government, while the latter gets "projects" from the national government and international entities. Yet these disjointed efforts not only appear to lead to fragmented governance, but also to confusion among people about which committee is which and the differences in their roles. This blending of the JAC and the Community Council in practice and in the minds of many individuals of Los Cocos has meant that the deeply engrained clientelism of the ongoing JAC project system has carried over into the governance of the Community Council. Votes are divided based on whether individuals believe a candidate will deliver projects to their villages. In contrast, in La Hormiga, there has been a concerted effort by leadership to avoid clientelism at every turn, with part of this being the return to "projects" as conceived of in the earliest days of the JAC, as a shared effort between the communities and outside entities, in which communities develop the ideas for the projects and offer the labor, while the outside entity provides the capital.

The leaders of La Hormiga have, since the mid-1990s, also been more cautious about allowing in aid organizations or projects that they feel might have a detrimental effect on the community. They have been careful in considering whether projects on offer align with their visions of the territory. In order to do so, they have had to first construct that vision, which has been a process of strong leaders sharing their own visions and rallying the community around it, including through promoting strong leadership among young people who will also take up this cause. Their rejection of a SwissAid project, described above, was just one example among several, with the decision not to participate in BIOREDD+ even after long discussions with USAID being the latest manifestation.

This decision among the La Hormiga leadership came from having learned from the results of interventions of the past. One gentleman from a village in La Hormiga who had participated in some of these early foreign aid projects in the River explained how these kinds of projects could create dependence and crowd out the normal incentives people had for going about their livelihoods: "From the projects of the past what I have been able to learn is that people interpret a project as a solution to bring money, and that money will come from the institution in some form. These institutional supports that have come in trying to transform some realities have in some sense miseducated people as well." Describing one project that went particularly poorly, he noted, "People ended up understanding that the institutions had to pay them to go to plant and weed their own land…until the institution came to give them the money, they weren't going to weed…and this generated a break in the thinking of the people" (Personal Communication, La Hormiga, 28 April 2017). A young leader from Los Cocos, who had lived outside of the community when the River's leadership began focusing on managing projects as their primary priority, had even harsher words for these projects and their impacts: "All of these structures, what they do is to bring interventions that don't resolve anything, but instead generate 'necessity'

from project after project…For me, it's the most horrible thing in the world. It seems to me that the endogenous development is more beautiful, because in addition, one takes ownership over things."

Yet in Los Cocos, memories among community members of procuring lasting infrastructure benefits via the JAC are strong. These memories have carried over into the modern Community Council era, which is today fueled primarily by foreign-funded development and conservation. Thus it is that despite the failure of most development and conservation "interventions" of the last three decades to bring lasting benefits, hope springs eternal, and "the project" remains the principal vessel in the minds of community members for achieving improvements.

When community members are asked what they want for their Rivers in the future, then, most suggest that they desire "projects" – but projects that work for more people, and that last -- though what those projects might be are more vague, as they have few examples to go on. This desire, then, somewhat paradoxically, remains strong despite the adamancy from most that few of the projects that have come through over time have had a meaningful long-term impact on the well-being of the villages. At a meeting I attended in the community between regional environmental authorities, community leaders, and woodcutters, for example, a member of the environmental authority asked what it would take for the woodcutters to stop cutting mangroves. The consensus among the woodcutters was "projects." When probed for what kind of projects, they responded with project agnosticism. "A store" one woman suggested at last. How the thirty woodcutters in this room and their families were all going to benefit from "a store" over the long term was less clear. Finally, the President of the Community Council Governing Board spoke honestly:

> We can try to get support for some projects that you decide might work for you. We can do that, and I am committed to doing that. But we have to recognize that projects will only last a few years, that funding will dry up and that the benefits might not endure. So the bigger question here is what do we do at that point? Are we going to go back to cutting down our mangroves at that point? Or are we going to make a commitment as a community to preserving those and recognizing the other benefits they bring us? (Community Meeting San Francisco, 2015)

This interest among community members in projects also makes sense given the extreme lack of capital available generally in these communities. Any investment, even a relatively small or short-term one, might help ameliorate the immediate daily challenges that people in these communities face. However, this system of dependence on projects has diverted resources from collective consideration and conversation about the form of development that community members could really benefit from. The ubiquity of these projects has led to the melding of endogenous and exogenous conceptualizations of "need," stifling internal creativity about what "autonomous development" could and should look like. Given this long history of the projects of the JAC, it is a challenge for people, it seems, to conceive of needs — or a notion of autonomous development — outside of the project frame. In Los Cocos in particular, which failed to break from this approach, the notion of the projects on which they must depend has shifted into the "interventions" of development and conservation, largely dictated by external organizations.

16 The role of funding in breaking down trust and social capital

The funding via projects from SwissAid and others had a displacing effect when it came to community members conceiving of their own solutions. It also broke down bonds of trust by replacing practices of mutual aid with external funding, creating jealousy and feelings of

exclusion, and generating constant rumors that this funding was being misused. In other words, the funding contributed to a breakdown in social capital, which is necessary to maintain the legitimacy and effectiveness of local governance institutions.

One example of the dependence and lower personal investment in the process these created was illustrated through a story that almost everyone involved in the organizing process in the beginning turned to in our conversations in order to explain how things had changed. As a leader from the late 1990s recounts this local parable:

> We started with the Ethnic-Territorial organization. In this era, we had to bring the firewood and the fish from here. In San Francisco, within the River, there is taro, plantain, banana. We didn't used to buy panela, we made honey out of our sugarcane. There wasn't a need to travel to the city to get things. When SwissAid appeared, they started to support us, so when we were going to have the Assemblies, we started going to the city to buy the food for the meeting, which we had never done before…People got used to this system…For me, I would have liked it to stay as it was where each village invested its part. The money that we spend buying food could be used for something else, but we don't do it that way. I don't understand why.

This is a simple but powerful example of how outside support like that offered by SwissAid in this case, while meant to reduce the burden on communities to host these meetings, can generate perverse internal consequences and actually damage the process they are trying to aid. This story, which we heard over and over, acts as a shared narrative about the decline in direct democracy and enthusiasm for the Community Council process associated with the entry of development aid into that process in the late 1990s. Years later meetings of the Assembly were continuously delayed because there were not enough funds available to buy this food from the city. This is indicative of the long term costs interventions can generate, and serves as a vivid example of the "trick" that depending on external funding can be for communities whose organization strength comes from their practices of mutual support.

In much of Los Cocos, people shared the belief that the Community Council was only really working for those individuals living in the center of the River, having seen the Governing Board concentrating resources from conservation and development projects in this part of the River. Of the four Legal Representatives who had led the organization, three had come from that part of the River. The headquarters building that had been constructed to host meetings of the Community Council and related activities was based in the town at the center of the River. The fact that most of the meetings were held in the center of the River also meant that members of other communities always had to travel to the meetings, which required either spending money on diesel for a motorboat or paddling a canoe for several hours each way. As a result, people in these communities were certain that by missing meetings, they were missing out on opportunities to benefit from these projects. Community members from one village at the top of the River noted that they had only ever "received a few chickens, which had stopped laying eggs shortly after getting them."

Several people told us that they thought that the leaders on the Governing Board were, if not in their roles to generate money for themselves from conservation and development projects, they were in their roles to generate jobs for their family members in these projects — driving boats, enumerating surveys, providing housing and food for pay, or guiding outsiders around the River. Such nepotism has historically gone hand-in-hand with clientelism across Colombia, so it was not a surprise that individuals assumed this was occurring. It was well-understood that while development projects might bring an occasional tool or input that was useful, the larger benefits

of the projects came from being contracted in these roles. Many young people were not afraid to share that they were sure the Governing Board had assumed their roles in order to support "their own pockets," and it seemed they were reflecting a common sentiment associated with disillusionment with the governance process.

Frustrations with this concentration of resources from these projects led many individuals to drop out of the Community Council process. This even occurred across whole villages, frustrated at being unable to get their candidates for the Governing Board elected. The central issue shaping Governing Board elections and different voting blocs, in fact, became about who would prioritize which communities for benefitting from which projects. This practice, as noted above, is a legacy of the JAC. If the people downriver joined in a bloc with those from the center of the River, for instance, they might be guaranteed that the Legal Representative they elected from the center of the River would prioritize investments in fishing equipment from development and conservation projects.

The presence of these project resources thereby led to a decline in trust among community members, and particularly a decline in trust in those who were managing the resources. As we saw in our research, most community members expressed a belief that the most important role of the Community Council today is to develop projects, and yet, most of these projects have not brought lasting benefits. Blame for project "failures" was in turn often put at the doorstep of the Community Council Governing Board, which generated a further decline in confidence in the Community Council.

17 BIOREDD+: Something new in town, or more of the same?

BIOREDD+ was needed, USAID argued, because prior community forest conservation projects had not meaningfully reduced local forest harvesting. USAID's theory of change for BIOREDD+ bet that the additional financial incentives provided by the sale of carbon credits from a successful reduction in deforestation might change the economics of harvesting and enforcement enough to reduce deforestation. While the team attempted to change certain aspects of its project based on the experiences of the past — no longer promoting forestry enterprises or patrols to crack down on rogue harvesters, for example — it had to live with the governance legacy of these earlier planning efforts. Its response to this challenge was to avoid forcing Los Cocos to undertake any particular governance actions, and to attempt to "strengthen governance" in a more generic fashion by hosting workshops aimed to link people more strongly to their own territories. Yet BIOREDD+ ultimately served to continue this long arc of development aid weakening the legitimacy of the Los Cocos Community Council. By the end of BIOREDD+, most community members had stopped participating in meetings of the Community Council and had little trust in either the process or the Governing Board. BIOREDD+'s high demands, complexity, and uncertainty, pieces of which were inherent to REDD+ and others of which were particular to the methodologies used by the BIOREDD+ team (see Chapter 7), were especially harmful to the Council's already weakened Governing Board.

USAID and its contractors needed to convince the community members of Los Cocos to commit to participating in the project, which, given its poor results, further weakened trust between community members and the Community Council process. The demands on, and incentives offered to, community leaders by USAID and its contractors required leaders to constantly respond to requests of these contractors in order to continue receiving support. This biased attention to these outward demands, which in turn undermined these leaders' downward

accountability to community members and the confidence of these community members in these leaders. In the second section, I show how the costs of the technoscience fixes also left little funding from the USAID budget for alternative development projects, meaning that the theory of change upon which the validation of the project design document was based was never actually executed in practice, but rather performed through the collection and display of suggestive props, such as meeting attendance lists.

The project's reliance on complex technoscience, as described in detail in Chapter 7, while key for creating the value of the project for outsiders, and thereby enabling the sale of carbon credits, has undercut BIOREDD+'s purported goals of promoting good leadership and accountable governance. As a BIOREDD+ director noted, "REDD+ has lots of cool things attached to it…as a methodology it's sexy, lots of bells and whistles." Yet these bells and whistles – critical for reducing perceptions of risks to end buyers, and yet unintelligible to most – speak to a recurring question that emerged through our interviews: how can community leaders fully own a project, and consent to it, when they struggle to understand it? A community leader from a different Community Council, who had been the Legal Representative a few years before, told me about attending a United Nations workshop on REDD+: "We had a capacity-building workshop in Bogotá for three days. I have the diploma in there. I would happily give that diploma to you, and you can change the name to yours, if you understand more than me: I didn't understand a thing." The Los Cocos leader serving as Legal Representative at the time USAID first proposed BIOREDD+ told me that the community had a drawn out set of discussions with USAID and Chemonics to start, in which most people understood little. Finally, on the day USAID was asking for the community's formal approval to participate in BIOREDD+, through the vote of a full-River Assembly, two people came to speak to the Assembly about the project – one in favor, one against: "One said it was good, one said it was bad. How were we supposed to decide? So we said, ok, why not, we'll try it." When there are resources offered in a place of great scarcity, with less clear risk than many daily activities or other funding promises involve, it is not surprising that leaders would lean toward accepting a project that guarantees at minimum some support for livelihood projects and an opportunity to cover administrative costs for the community's governance.

The fact that the decision about whether to accept REDD+ was still, professedly, poorly informed after two years of conversations about REDD+, though, illustrates just how strange REDD+ is for most members of these communities – and also for many of the contractors tasked with explaining it to them. As one contractor told me, "I didn't know how to explain it to them, as it was all new to me, too…the best I could do was to tell them the project was looking for 'fat trees.'" Many community members knew REDD+ had something to do with forests but struggled to articulate anything more about the project: "I've sat in so many meetings where they've talked about REDD+, but I just still don't understand it," one community member told me. This frustration was echoed in many other interviews, and reflected in household survey results: by the fall of 2016, five years after BIOREDD+ was first introduced in Los Cocos, 64% (+/- 8%, 95% CI) of households surveyed in in the River still had not heard of REDD+, or had heard of it but did not know that it had to do with forests. Decisions by USAID and Chemonics to perform BIOREDD+ as more technical in order to make it more trustworthy and legible to outsiders, such as by using LIDAR flights to measure carbon rather than participatory ground measurements (see Chapter 7), limited community participation in these key parts of BIOREDD+ and contributed to this general ignorance of the project and its goals within the community.

A member of the Chemonics team at the time suggested that because of this complexity and confusion, the consultation with communities should have been slower at the start: “They really needed to know what they were signing.” A director of BIOREDD+ suggested that translating REDD+ into something community members could understand, something that made sense within their context, was one of the greatest challenges of the project. When viewed from the perspective of individuals that have been at best neglected and at worst violently exploited or attacked by outsiders, including their own government, the idea that someone from another country wanted to pay them not to cut their trees sounded more than a little suspicious. It was no wonder that numerous community members told me that REDD+ was a way for “Americans to steal their oxygen.” In La Hormiga, a leader asked a question that others alluded to as well: “It’s important for us to ask for whom are we conserving the forest. Is it for us, or for someone else to come in here in 50 years and steal the trees we’ve carefully guarded?”

The technical complexity of REDD+, then, while designed to make these forests appear legible and the project legitimate to outsiders, is ironically an obscuring force for those on the ground. This lack of clarity makes it easy for community members to distrust those leading the project. If it is difficult to maintain transparency and accountability around details in simpler projects, like how many chickens each beneficiary of a given project received, how are leaders expected to explain the way carbon credits were issued from the algorithms produced by a “novel combination of LiDAR and SAR?” Or the way prices for those credits were determined in a market that has seen credits sold for anywhere from 3 USD to 30 USD per tonne? For that matter, how should they describe at the most basic level how their trees translate into carbon, how carbon translates into climate change, and what climate change is? These are challenges that have still not been fully resolved in Los Cocos, and that have contributed to the governance challenges elaborated below. Some obscurity also results from the confidentiality agreements that contractors have negotiated around their work with USAID – EcoPartners, for instance, has not, at the time of writing, shared the models it is using to develop baselines with community members or explained to them the specifics of their analyses. This lack of clarity also makes it hard for community members to monitor for themselves how they are doing to reduce deforestation.

In order to get community members to approve BIOREDD+, despite this complexity around these technical elements, it was necessary for USAID and its contractors working with the community to convince them of the concrete benefits that the project might bring. As carbon credit payments were not guaranteed because of the instability of the voluntary carbon market, and because these possible benefits were harder to explain in any case, the emphasis in these discussions was then on the alternative development projects that the program would offer. Contractors working with community leaders enlisted these leaders to help them perform the benefits of BIOREDD+ for the community, setting expectations high enough to get the Community Council Assembly to approve the project. As I describe below, these alternative development projects have yet to produce visible benefits for community members, however, and some have caused enough problems for project participants to say they would have been better off without them. The inability of these projects to live up to the expectations that project managers set early on has been another source of distrust between community members and leaders, as some assume the gap between expectation and reality in development projects in general can be explained by the corruption of their own leaders. “They are only looking out for their own pocket,” one interviewee stated, while in a focus group, another declared, “The leader works for his own pocket.” References to this lack of trust in leaders’ management of funds were

common, but more oblique, in other interviews. The Legal Representative of the Los Cocos at the time shared in an interview that he thought this was due to the communal nature of many benefits associated with projects:

> People always say that the Governing Board fills their own pockets, but they don't see the support that gets to the communities. People want you to talk to them and give to them individually. For example, a resource was coming that would favor everyone, making a school where all the kids of the community would benefit. They don't look closely at this and they say that the members of the (Board) are keeping the money…If we buy a generator for all of the village, the inhabitants do not see this as support for the community, because it isn't for personal use, it wasn't divided between all the houses.

The Legal Representative went on to note that in one project in which funding was supposed to be given directly to the community members, people neglected to "subtract 19% for taxes," and so assumed that the gap between the funding they received and that mentioned at the start of the program was being taken by the Governing Board.

Community leaders, while strained to maintain transparency around REDD+ internally, also have been asked to be outwardly accountable to the contractors hired by USAID to execute BIOREDD+. They must be in regular contact with these contractors, which has meant that community leaders often find it more convenient and economical to reside in the city rather than in their community, so that they can respond to emails, draft project updates, sign documents, and attend meetings. As one leader from La Hormiga working for BIOREDD+ in its early days explained the pressure on him from contractors: "These people don't understand what life is like here – they want a report yesterday, but they don't understand that we need to work with the rhythm of the tides, prioritizing our community's needs, dealing with the risks and uncertainties of everyday life here. But USAID needs something, so Fondo Acción needs something, so we end up always feeling stressed and behind." The high cost of transport by boat between their communities and the city, and the inconsistent communication tools available in the rural Rivers, means that these leaders miss out on many things occurring in their communities when they are away – a phenomenon that is exaggerated if these leaders take the subsequent step of getting a job in the city to support paying rent.

Of the two Legal Representatives of La Hormiga I came to know, one lived in Buenaventura with his family, while the other lived in Cali, over the mountains from the coast. They traveled to the River at least once a month for several days, punctuated by longer stays during school breaks. The rest of their Governing Boards remained in the River, however. In Los Cocos, of the people in the three top positions in the Governing Board, all three spent most of their time in the city, making the 1.5 hour trip regularly, but generally just to "manage projects." When I would ask around for them, then, I would learn that they were coming back when they had to show up for workshops, or make sure that a good being provided by a project was distributed properly.

The leader who can perform most effectively for the contractors may not be the ideal leader for meeting other community needs. In the case of REDD+, understanding and being able to communicate about REDD+ is the contractor's priority in local leadership. By way of example, in 2013, a young biologist, Marco, was elected to the Governing Board of Los Cocos shortly after BIOREDD+ began. Marco did understand the details of REDD+. Yet he faced challenges to gaining the trust of community members, because he had lived outside of Los Cocos for most of his life, allowing him to get the university education that helped him to understand REDD+. He also lived in the city as leader of the Governing Board, in part to respond quickly to the needs of

BIOREDD+ and other external demands of his position. The Legal Representative through most of BIOREDD+ was also spending most of his time in the city, living from a stipend from the Community Council – the first time such a stipend had been provided, according to others on the Governing Board, and a drain on resources for organizing efforts.

Yet governance happens in Los Cocos through face-to-face conversations, and the absence of leaders for long stretches of time degrades trust among community members in these leaders. Some from Los Cocos reported having seen Marco and the Legal Representative only twice in their village over three years. As one interviewee put her frustration: "If you don't communicate, how are we supposed to know what is going on? The Legal Representative can't work alone. Currently the Legal Representative has disappeared, working in the city. Things can't work that way!" Past leaders suggested this new absent governing board had let down their guard on their most important role: vetting and accompanying outsiders coming in and out of the community. Conversations with a wide range of community members suggested that the Governing Board that oversaw the core implementation period of BIOREDD+ was least trusted out of the five Governing Boards that had led the Community Council over its existence. Various community members noted that they had personally withdrawn from community processes out of frustration with the current Governing Board's physical absence and lack of communication. By the time BIOREDD+ had officially wrapped up, household surveys indicated that a third of Los Cocos' population trusted the River's Governing Board, in contrast to half of the population of La Hormiga trusting its Governing Board (statistically significant; see Table A1 for more details).

The contractors, on the other hand, appreciated Marco, as he could understand and manage the complexity of REDD+, and interact effectively with those outside the community. They actively encouraged and rewarded the outward accountability of members of the Governing Board. This sometimes included offering them jobs within the projects, including as enumerators of surveys, boat captains, association managers, or workshop leaders. Over the life of the project, BIOREDD+ probably hired about 20 people in Los Cocos for various jobs. These performances were also important for maintaining good relationships with the contractors and donor, in the hopes of getting more funding in the future. As an NGO staff member leading alternative development projects for BIOREDD+ told me, "I am not worried about San Francisco because they have Marco." The staffer was not in a position to appreciate, or respond to, the limited trust community members had in Marco despite his best intentions and efforts in the city. The expectations that Marco and his fellow leaders aim to meet for BIOREDD+ contractors therefore intensified conflicts between the desire of USAID and its contractors to make forests legible to outsiders through technical fixes, and its ability to strengthen local governance.

This irony is best captured by the time Los Cocos' leaders spent out of their communities sitting in USAID-funded good governance workshops. Despite the evidence on the ground of a growing disconnect between the governance process and average community members, the external indicators of governance capacity used by BIOREDD+ was relatively straightforward, as the community Governing Board was the officially designated project proponent, and composed of elected leaders at a local level, a few of whom could speak clearly about REDD+.

USAID and its contractors fully recognized the governance challenges in Los Cocos, and saw them echoed, if not exactly duplicated, across many of the other communities where they had BIOREDD+ projects. Having learned their lessons about the limitations of forcing a community to try to govern in a particular way around a particular set of priorities, then, they instead sponsored a set of "territorial appropriation" workshops in BIOREDD+ participant communities (Apropiación Del Territorio - Teaser 2015). These workshops, which included between 30 and

50 community members and were held in the common spaces of the project territories, were designed by an anthropologist to strengthen the connection that residents felt with each other and their lands, and their commitments to protecting them. An artist was brought along to the workshops to capture the words of the participants on a mural in real time throughout a series of exercises. In the videos, the inspired words of community leaders and workshop facilitators are spliced with vibrant close-ups of mangroves and their inhabitants, and local forests and rivers.

These workshops were elements of a key pillar of the BIOREDD+ strategy, aimed at "Strengthening local governance capacity for Afrodescendant Community Councils and indigenous reserves," and "strengthening environmental governance" (Chemonics International Inc. 2015). This pillar was designed to align with USAID Colombia's official Development Objective to "Strengthen Colombia's efforts to sustainably manage the country's environmental resources." The theory of change underlying these workshops in particular was that if people in the Rivers reconnected emotionally with their territory, and if the leaders of the communities were more responsive to the demands and had the skills and resources to support their community members in sustaining their families and the territory, that the entire Community Council governance effort would be more effective at – and desirous of –conserving their forests. Community members would be more capable and willing, for instance, to work with their neighbors to stop over-harvesting of trees, and less likely to allow in people from other communities to take their resources.

It is hard to measure the impacts of the workshops on their participants, or whether these impacts reverberated through space and time. Some participants told us the Los Cocos workshop was lovely, and that the artist's work was interesting. The three people we asked about it did not believe it was likely to change behavior, however.

18 Discussion and Conclusion

This tale of two communities and the ways they have handled and been affected by development and conservation projects over the last thirty years provides valuable evidence in response to the questions of whether titling or secure tenure reduce deforestation, and, if so, the mechanisms by which they do so. In addition to the most obvious benefit for conservation of secure land tenure — giving community owners greater assurance that they will live in and benefit from the territory in the future — Blackman and Veit (2018) have suggested that the contact that communities have with external NGOs, government agencies, and private sector entities around titling may also help to increase forest conservation (p. 58). This research shows the ways in which these hopes may be constrained, and even, in the case of the latter, result in perverse consequences that undermine social capital and diminish the possibility of achieving successful local common property regimes.

The act of an executive branch body to change the legal ownership of a particular piece of land certainly cannot guarantee any particular outcome on the ground, particularly where this land is in a dynamic region under many other pressures. Other scholars have shown these limits (c.f. Robinson, Holland, and Naughton-Treves 2014). Having title guarantees little in regions where armed groups often attempt to dictate the rules of the land, and where the government might still be able to give away subsoil rights to a multinational mining company. Communities know that their titles are not guaranteed — that at any moment a new government might overturn what they had fought so hard for. If the continued survival from the land is the goal of the leaders of communities granted titles, then they must be fully committed to managing their territories in a sustainable way — through whatever means works best for them, whether captured in scientific

journals or not —, and committed to inspiring the rest of the community to buy into that vision collectively. This research has also shown the centrality of building up a broad reservoir of motivated leaders and creating as expansive a base of active participants as possible in governing in order to put the title to work in "closing the commons" off from outsiders. And though when the state dictates the emphases of Community Councils, it undermines their authority, the Councils do need the backing of the state when they ask for it, and in the form they request.

Contact with NGOs and government agencies via development and conservation projects can have perverse consequences, weakening local governance bodies and giving easier passage to outsiders who would like to benefit from cutting trees or other destructive extractive industries in the territory. In the case of Los Cocos, the obsession of foreign donors, NGOs, and state agencies on reducing local wood harvesting from the earliest formulations of the Community Council drove just such perverse outcomes, as people withdrew from the local governance process. The organization lost the collective capacity to stave off gold mining with heavy machinery, mangrove harvesting, and coca growing, all fueled by outsiders. In contrast, in La Hormiga, a decision was taken at the start of the Community Council that the community, not outside entities, would dictate the terms of local "interventions." In some cases, this meant deciding not to participate in some large projects, ranging from that of SwissAid shortly after they gained title because SwissAid refused to work with multiple River communities jointly, to that of BIOREDD+ over the last decade. Based on the analyses done for the BIOREDD+ project, deforestation rates in La Hormiga have been lower during the last decade than those in Los Cocos (Interview with BIOREDD+ consultant, data not public). There are no excavators for mining or land cleared for coca growing there, and they experience much lower rates of mangrove harvesting.

This suggests that the tenure-forest cover links may include some important intermediary links that are not addressed in the literature. Communities that have the foundations for strong governance to start are those most able to organize to secure land titles, and to do so without needing to become dependent on outside organizations in the process. Other communities may achieve titling with the help of outside groups, as Los Cocos did with help from the Assessor and SwissAid, but these relationships may actually result in weaker young governance bodies. Governance, it would appear from comparing Los Cocos and La Hormiga, is a capacity that needs to be flexed and challenged to grow stronger and endure. Without that exercise, the legitimacy of any governing body will wither. A meeting called by outsiders in which a dozen people talk about what good governance means is very different than a meeting called by leaders from across a River, with hundreds of people from across the River participating, to discuss and decide the community's goals and regulations. Only the latter builds community bonds, trust, and shared narratives and direction. It seems that while both Los Cocos and La Hormiga had built up strength through the organizing process leading up two Law 70 in the mid-1990s, the heavy hand of outsiders in directing the process and dictating its agenda contributed importantly to the withering of that process over the decades that followed.

In addition, this work shows that outsiders cannot shape a community to become the idealized resource users in Table 1, above, simply by giving them title and interaction with conservation organizations. Indeed, we have seen that attempts by outside organizations to support some of these attributes — including accurate information about the resource (#1) and a shared recognition and concern about the depletion of this resource (#2)— can contribute to undermining other attributes — namely, norms of reciprocity and trust (#3), and the development of rules created by agreement from most, though not all, users (#6). While titling tries to address

#4 and #5 — keeping outsiders from benefiting from the resource and allowing community members to feel a long-term connection to the land, including into future generations — this requires that the local governance arrangements implementing these property rights is also strong, with people across the community bought into the process.

This is not to say that titling is bound to fail or that the Community Councils could never benefit from outside help. La Hormiga has created development plans, conceived of and approved by the Assembly, that they have then sought funding to support from local governments, NGOs, universities, and their own Kickstarter campaigns. They have made videos about their vision and what they seek for their community to accompany these campaigns. They have sought accompaniment from human rights NGOs and intergovernmental bodies in their struggle to maintain peace and neutrality in their territory. This is a very different way of seeking support and relating to outside organizations than developing a relationship with an aid donor and agreeing to participate in the projects that donor conceives.

Not every community will have the fundraising savvy to manage efforts like those of La Hormiga, and there may only be space for a few of these organizations to benefit from such publicity, and there are other limitations to these lessons. Each of these communities is distinct and each has gone through countless challenges, both related to these development and conservation projects and to unrelated, highly disruptive and destructive forces, including being caught in the midst of armed conflict for over a decade. It is difficult in analyzing these experiences to pull out different threads from these experiences and know exactly what role each piece has had in reshaping life and governance in the communities of Los Cocos and La Hormiga. This becomes an even greater challenge when working in translation, with my research assistant and I, outsiders, as intermediary interpreters of the stories shared with us. Did people tell us more about these projects than about the effects of violence because the latter were things they could not or did not want to talk about? Might this have resulted because we as researchers were not permitted to ask questions specifically about the conflict in order to protect these subjects, requiring that the current governance context be explained through other pathways? Did people constantly focus on projects in our conversations with them because they thought, despite my best efforts to explain my academic role and the fact that I came with no money or projects myself, that I was one of the gringas who would be bringing projects in the future?

All of these are likely part of the story. Yet these are the findings and the human stories that emerged from this imperfect and limited study. The same results would not emerge in every place. Indeed, the findings demonstrate the importance of understanding a given context not just in numbers but in intimate quality. The examples of Los Cocos and La Hormiga help us to parse the mechanisms by which interactions between these projects and a given context of governance shape future governance, as well as the likelihood that associated conservation outcomes will be achieved.

Nor do the findings appear to be unique across the Pacific. Velez, writing in 2011, found that in only three out of sixteen Community Councils that had written Territorial Management Plans did community leaders feel that these were being implemented in any way (Velez 2011, 126). Based upon her finding that a third of interviewed leaders of untitled communities saw their lack of title as blocking access to productive and infrastructure projects, Velez noted “The race to obtain benefits could generate rent-seeking behavior, which in turn could divert the original intention to manage the territory” (Velez 2011, 123). This tension between rent-seeking and territorial management is at the heart of the unintended weakening of Los Cocos’ Community Council, attributable to conservation-focused development projects. She also notes that the “New

Community (Governance) Boards are still going through a process of authority building, which includes recognition of the new authority by community members" (Velez 2011, 122). It would appear that in the case of Los Cocos, the intervening years have done little to strengthen that authority.

The findings echo problematic outcomes seen in other conservation and development projects. Not only did BIOREDD+ fail to build the governance strength it hoped to within the Community Councils, but it ended up undermining, albeit unintentionally, these local governance institutions. The fact that the community that spent less time on elaborating scientifically rigorous plans and rules to conserve has had more success in protecting their territory suggests a reconsideration of priorities for communities receiving collective land titles may be in order. A "great plan, unimplementable" — a riff on David Mosse's famous critique of development aid (Mosse 2004) —may in fact be worse than useless in these communities. It may detract from a more cohesive, sustained, legitimate, democratic governance effort.

The cases also point to the dangers of outside organizations using communities for their own benefits, including by getting votes from them through promises they are unlikely to keep. *Proyecto-centrismo* has weakened the particular governance capacity built by designing internally driven solutions to local challenges. Building the strength of the Community Council will require reinforcing this capacity. When people are either kept busy attending a stream of meetings with technicians meant to help them better manage their little cacao patch that, even in the best case could buy them a bag of rice per month, or are feeling excluded from the governing process because they have not been given any cacao at all, they have less space and encouragement to join together in these collective exercises. Much as Agrawal has shown in his work, these outside demands can create dual subjectivities among community members in these communities, as they are labeled, and over time become, environmental subjects in need of outside support (Agrawal 2007, 128).

Can Payment for Ecosystem Services programs like REDD+ serve as an extra boost to communities trying to find their governance footing after receiving title to their lands? This work suggests that if it is to work, it has to be done in a manner quite distinct from how most of these programs have worked to date, being imposed from the outside, with a focus on generating carbon credits. The outcomes of this interaction depend both on how communities approach relationships with outsiders and the autonomy and power outsiders give to community governing bodies and institutions. The findings echo the warning Larson posed early on in REDD+, linking the "imposition of externally designed rules" on communities seeking secure community tenure rights to likely REDD+ failure: "The failure to address equity issues, however, places the project at risk; it is likely to alienate forest-based peoples, increase conflict, and lose the confidence of the international agencies currently promoting REDD+" (Larson 2011, 547). Those seeking to support communities that come to them wanting to establish a PES program must recognize this and enable communities to take control of, or continue determining, their own development trajectory, rather than attempting to control it or tie strings to it from the outside. We shall see in the next chapter that the technical complexity of PES programs like REDD+ makes it particularly difficult for these communities to truly understand or own these processes, or to relate them to their daily lived experiences, and that the organizations working with them are more challenged to give them ownership.

Chapter 7. Carbon performances and their climate implications

> The problem is not a 'bad baseline' but the concept of counterfactual baselines itself (Lohmann 2016, in Lang 2016).

1 Introduction

As the past several chapters have revealed, the BIOREDD+ projects directly changed few activities in the rivers across the Pacific in which they landed between their start in 2012 and 2017, the year they were verified. Yet these outcomes on the ground have not prevented them from generating millions of carbon credits to be sold in carbon markets. By the end of 2020, the suite of BIOREDD+ projects in total had sold 3,219,983 Verified Carbon Units (VCUs, otherwise known as carbon credits) (Verra 2021c). Each VCU is meant to represents a metric ton of carbon removed from the atmosphere or not emitted into the atmosphere. 55% of the VCUs from BIOREDD+ are considered to be sold on the "compliance" market rather than the "voluntary" market, as they are motivated by the Colombian carbon tax policy implemented in 2017 (Verra 2021c). This policy allows for companies subject to a national carbon tax on liquid fuels to avoid paying the tax by becoming carbon neutral through their purchase of carbon offsets from in-country projects like the BIOREDD+ projects.

By 2020's end, the Los Cocos REDD+ project in particular had sold precisely 424,438 VCUs to the likes of Chevron, Petrobras, Biomax, and Prodeco (Verra 2021b). The verification process for REDD+ estimates that annual emissions reductions for the Los Cocos project were some 297,488 tons of carbon per year, or 640,688 tons in total by the time of the verification in 2017 (Verra 2021a).

How can a project that apparently changed so little generate so many carbon credits, suggesting that it had contributed to sparing many thousands of trees? This chapter parses this apparent contradiction between what was witnessed on the ground and the generation of carbon credits from BIOREDD+. Understanding the contradiction reveals why guaranteeing that emissions reductions from REDD+ projects are "real, additional, verifiable, enforceable, and permanent" is impossible. Diving into this contradiction reveals that BIOREDD+, and indeed all REDD+ projects, are able to create carbon credits that appear *real* to outsiders through a *performative* process. In other words, to those buying carbon credits to offset the carbon footprint of a Fortune 500 company, the process that has brought carbon credits onto a carbon market may appear to be simply making something that *exists* legible to the outside world and "investible." In other words, it is considered to be a translation process, and the translation is verified as being a *good* translation, whose meaning roughly holds up across languages, if it has passed through a "reputable" verification process. The problem becomes that this process that is assumed to be one of translation is in fact creating something entirely new, something that may or may not have anything to do with the very thing that it is supposedly representing. The abstraction required to make avoided deforestation legible and tradable to those in global carbon markets thereby simultaneously obfuscates what takes place on the ground.

This chapter details this process of *performing* carbon credits from REDD+ projects into life, using BIOREDD+ as an example. We see how experts create the frameworks and rules necessary for other actors across the REDD+ commodity chain to "perform" emissions reductions into life. As part of this effort, these experts *perform* in what Bruno Latour refers to as "theatres of persuasion," where they "stage performances, amassing far-flung inscriptions and

visualizations of all kinds in a single framework" (P. Graham 2005). The chapter demonstrates how tools that enable the supposed translation of avoided deforestation into carbon credits are in fact transformative, and that the process of transformation obscures whether the credits represent what their buyers are told they represent.

It also explains why the actors involved in this process of transformation have little motivation to reveal when carbon credits are poor representatives for avoided deforestation that is real, additional, verifiable, enforceable, and permanent.

The chapter starts by showing how the many steps that require expertise that is either technical or very particular to the REDD+ process to transform actions on the ground into carbon credits serves as a smokescreen for recognizing whether REDD+ is in fact achieving these goals. As such, knowing whether a carbon credit purchase is in fact having a salutary, harmful, or null effect is difficult for a buyer to discern, even with many levels of certification aiming to make this a simple answer. I then focus in on one of the tools used in this process which is core to this transformation: the counterfactual. I show the inherent problems with assessing change in the real world based on counterfactual scenarios, and the way REDD+ projects are able to take advantage of using a range of possible methodologies to create counterfactuals to develop the counterfactual that will be most advantageous for creating carbon credits. In the case of BIOREDD+, reference regions were used to design a baseline against which the project would be compared in the future. This proved to be the central reason the project analysis suggested that the project had helped "avoid deforestation of 1468 hectares" (Fuentes Pérez 2018). Finally, I show how, despite the many layers of "verification" that exist for REDD+ projects to try to counteract bad actors in the system, ultimately the motivations of the actors prevent these verification processes from serving as strong checks on the generation of these credits. To the contrary, every actor involved in the supply chain of carbon credits benefits from, and wants to see, the creation of ever more credits. No one has an immediate incentive to suggest that these credits might not represent emissions reductions. As a result, at each link in the supply chain, each actor is encouraged to suggest that reductions in deforestation are occurring.

In the section that follows, I review what past research on REDD+ and carbon markets has taught us about each of these challenges. I then use the case of the BIOREDD+ project in Los Cocos as an example of how each of these challenges plays out in practice to make it not only difficult for reductions to be achieved, but also difficult for these projects to *not* be credited, and for buyers to know it these credits are "real."

2 Review of literature

Avoided deforestation offsets like those produced in REDD+ might seem like a risky place for companies – either offset project developers or carbon credit buyers – to invest. Wildfires can burn thousands of acres of forest over the course of a few days, releasing much of the carbon stored in these forests into the atmosphere in the process. Tropical rainforests are often on lands that are under tenure disputes (Sunderlin et al. 2018; Naughton-Treves and Wendland 2014; Gizachew et al. 2017). Even where governments in these countries have a history of promoting conservation practices on paper, certain agencies or individuals commonly benefit by selling concessions to those seeking to chop down the forest – concessions that frequently overlap with areas where people live who depend on the forest for their livelihoods (Ribot and Larson 2012). Unstable governance and armed conflicts in these regions, climate change, fickle global consumption and production patterns and the booms and busts they produce all add uncertainty to these purchases. As Interpol officers have stated, all carbon markets are highly susceptible to

scams – but forest carbon is particularly ripe for these: in the market's earliest days, for instance, so-called "carbon cowboys" successfully sold snake oil carbon credits based on fake or coerced contracts with indigenous communities (Jacobs 2013).

Yet there is an undeniable allure to these REDD+ offsets among some consumers, as Lovell and her co-authors have described (2009). These verified emissions reductions from avoided deforestation attract individuals who are looking to either feel better about their purchase having "co-benefits," or companies who want to be able to tell a compelling story about their offset investments and the broader social and ecological goods they provide (Boyd and Salzman 2011). REDD+ projects offer such powerful stories, including because they are often taking place in regions where local people live from the land and have been neglected, or actively exploited or harmed, by the state. These forests are also typically "biodiversity rich," meaning that reducing deforestation in these areas might also contribute meaningfully to protecting a large number of species. They also have typically followed the playbook of conservation and development projects that have come before, attempting to drive forest conservation by providing "alternative livelihoods" to the people living in and around the forest (E.O Sills 2014, 60,106,112,118,130,191,223). In doing so, the theory of change goes, these people will no longer need to rely on cutting down the forest for fuelwood or commercial sale. They also may be more inspired to protect the forest if it provides the commercial products from which they are benefitting, such as "non-timber forest products" like acai, Brazil nuts, vanilla, annatto, or other goods that are found naturally or grow best within a forest. Stories about improving people's lives through a better income, coupled with images of charismatic or colorful wildlife, make for effective marketing. The US tech giant Apple, for example, described its commitment to livelihoods in its offset purchases: "In 2018, Apple partnered with Conservation International, local government, and conservation organizations in Colombia to protect and restore a 27,000-acre mangrove forest in the country. The aim is to sequester 1 million metric tons of carbon dioxide over the project's lifetime. These mangroves not only protect the coasts and help support the livelihoods of residents in those communities where they grow, but they also store up to 10 times more carbon than forests on land" (Apple 2021). These mangroves are proximate to the forests in the BIOREDD+ project. Despite these projects' risks, then, some corporate buyers may pay premium prices for REDD+ project credits in particular, enabling them to pass these stories and the warm feelings they conjure up for their customers (Stephan 2012).

In order for the buyers who wish to capitalize on these narratives to minimize their risks, lest the reputational gains achieved by these narratives become liabilities (MacKenzie 2009; Boyd and Salzman 2011), then, those creating these credits have leaned heavily on experts with particular credentials – such as PhDs, or years of experience working in finance or development organizations – to endorse their purchases via complex verification processes. Many of the experts involved in REDD+ have invested years attempting to make avoided deforestation credits *credible* (Verra 2021d). This has involved building out the supply chain for credits in a way that demonstrates the accountability among the actors in this chain and includes approved methodologies for developing and assessing these projects.

Given the illegibility of these forest regions to most lay people, the experts setting the rules for REDD+, creating deforestation baselines, and telling the stories of these projects to the world are therefore key gatekeepers to defining success in these projects. These experts, many of whom have individually helped to construct the rules of the market, and then applied them as contractors within the projects, must demonstrate to the other actors within the carbon credit commodity chain, to the end buyer, and to the skeptics of carbon markets more broadly that they

are in fact measuring "avoided deforestation" rigorously and representing it accurately. These experts hold a privileged position in the creation of these carbon credits, as Milne and Mahanty (2019) have demonstrated via their case study of a Cambodian REDD+ project (2019). Their work also illustrates how the actions of these expert intermediaries serve as the most visible manifestation of the way that *performances* and *persuasion* are central to making a market where the product being sold is invisible (Milne and Mahanty 2019, 134–35). They found in their case that elite experts played a keystone role in defining the performances necessary for REDD+ to operate, and in executing these acts of persuasion (Milne and Mahanty 2019, 141).

This notion of experts helping to naturalize the substitution of an abstraction – a carbon credit, in this case – for the thing itself – deforestation that did not happen – is central to science, and, indeed, being a human who must make sense of the world through categorization that necessarily relies on abstraction (Turnhout 2018). As Turnhout puts it, "the thorny issue is that there is no way to determine whether or to what extent the results that come out of our experiments or studies are facts, truthful representations of reality, or whether they are artefacts, produced by our measuring instruments or theoretical assumptions" (Turnhout 2018, 4–5) Yet, with enough expert buy-in to and use of these categories, these representations become naturalized, appearing to stem "from nature itself" (Foucault 1994 as cited in; Turnhout 2018, 6).

Such representations are often contested, particularly when they are fairly new, as forest carbon credits are. This contestation can have many origins. Those assessing a situation may have conflicting data or may reach different conclusions about a given set of data based on their preexisting understanding of the world. Some may not rely on scientific data at all, but rather on religious dogmas, in contesting a concept like evolution. Contested representations are "hot," in the words of Callon, and require those with a stake in a particular representation to pull heavily on the weight of experts to convince others of the legitimacy of these representations by performing these representations into reality and, through their expertise, naturalizing these performances at the same time (Callon 1998).

The transformation of avoided deforestation into carbon credits that are made fungible with fossil fuels is a classic example of a "hot" concept that remains contested and therefore requires experts to naturalize the concept. Lohmann (2014) and Mackenzie (2009) have pointed to the power of equations to naturalize these transformations in other carbon credit contexts, such as those deployed to create equivalence among different greenhouse gases. The "common sense" naturalization of these expert-generated, often inscrutable, equations reduce contestations of other aspects of REDD+, which depend on the creation and maintenance of these beliefs and performances (MacKenzie 2009; Bumpus 2011; Lohmann 2014; Fletcher 2010, 20). REDD+ has also been made possible by the scientific and technological advances that are constantly reducing uncertainty about forest carbon, and allowing measurement of this carbon to take place via satellites and airplane (c.f. Takoudjou et al. 2018). There is constant contestation over these measurements and how well their outputs represent reality, of course, as well as ongoing scientific efforts to make these measurements more accurate (Andrade et al. 2017; Mitchell, Rosenqvist, and Mora 2017; Hagensieker and Waske 2018; Leblois 2018; Sanchez-Azofeifa et al. 2017; V. Graham et al. 2017). Technoscience has also supported REDD+ through the creation of equations and models to convert the outputs of these new technologies into tons of carbon, and via the development of complex methodologies involving social and economic analyses that purport to predict the future and the risks it will bring with knowable precision.

3 REDD+ Complexity as Creator and Obscurer

The complexity of REDD+ projects, as described in earlier chapters, therefore derives in part from the need to employ multiple layers of experts to create a product people are willing to buy out of something that *has not happened* (trees have not been cut) – in other words, to naturalize the relationship between the commodity and the product it represents. Yet the veil of legitimacy created via this complexity simultaneously obscures practices on the ground, as the artefact is substituted for the fact without a lay person having any alternative way to assess the relationship between the two (Gupta et al. 2012). Through LiDAR, advanced equations, algorithms, and cutting edge finance tools, these experts are able to paint a picture of what is happening on the ground that may diverge starkly from what those who are supposedly taking part the project "on the ground" experience or would describe (Leach and Scoones 2013). This is more easily obscured, however, by the fact that what is happening on the ground may be described differently by different individuals, and none of these narratives can usefully be compared with the quite distinct lenses of LiDAR and satellites.

Complexity, in the form of an appearance of technological and scientific rigor, also translates in other ways into economic value on the carbon market, as each method for measuring carbon has different error associated with it. The size of the error determines what percentage of credits from those generated can be sold on a carbon exchange, and those dependent on airplane lidar measurements – those most inscrutable to those on the ground – generate the most value (Pelletier, Busch, and Potvin 2015). In cases where LIDAR is used instead of community forest carbon measurements to secure more credits, then, the desire for generating as many credits as possible may negate the possibility that some of the complex elements of REDD+ could *empower* communities on the ground (c.f. Gupta et al. 2012).

The developers of the Verified Carbon Standard have sought to create trust in the transparency of the carbon credit creation process among buyers, developing a system whereby each credit can be traced to a project, and buyers can read the individual project documents. Crucially, though, even if buyers review the deluge of documentation available on the Verra registry (Verra 2021b), few are going to go to the remote areas where these projects are most likely to generate carbon credits to assess whether the auditors' words ring true or the responses of project developers to these auditors words are adequate. Nor are they going to dig into the satellite data to see whether the historical images are of high enough quality to develop an accurate baseline or look at the assumptions used to generate the leakage areas for the project. The availability of this documentation therefore serves to give buyers confidence that they have the "full picture" of what is happening on the ground when they make a purchase, and to naturalize the transformation of avoided deforestation into fungible carbon credits.

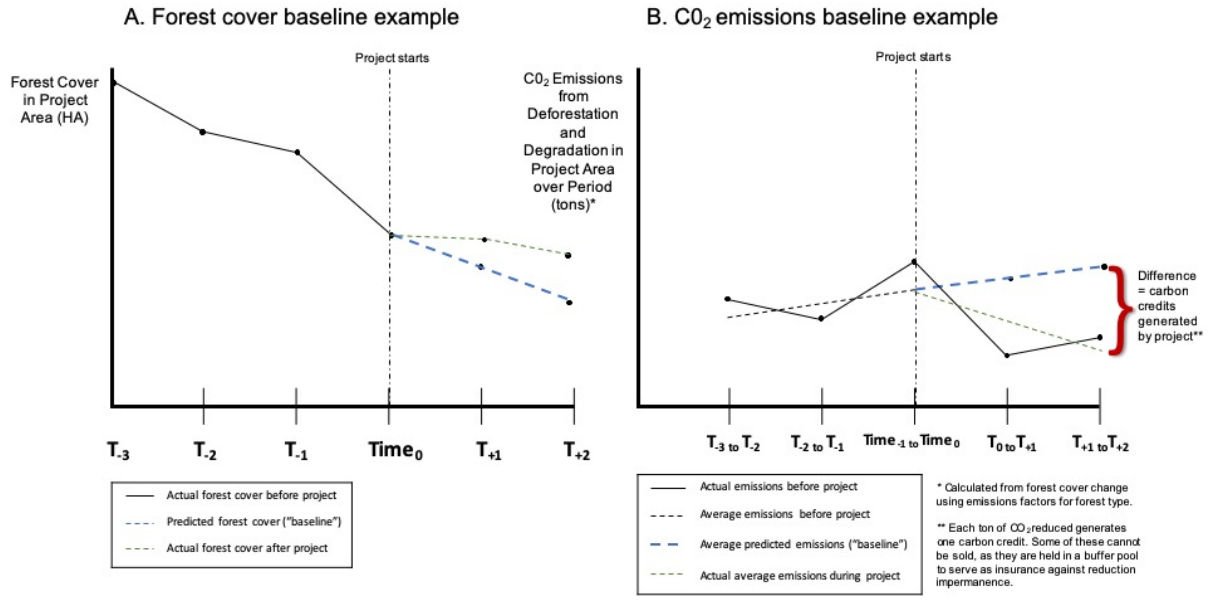
A centerpiece of the challenge of grasping at the "success" of "interventions" like REDD+ – in this case, understanding how faithfully the artefact of the carbon credit represents actual change in deforestation rates -- is the question of what makes for the most realistic counterfactual for the intervention. What would have happened if the intervention had not occurred, and therefore what has been the relative benefit of the intervention in comparison to this counterfactual scenario? In the case of REDD+, this question claims an elevated status because a project cannot be considered to have "succeeded" as a REDD+ project without generating carbon credits, and therefore without appearing to have made some reductions in deforestation in relation to what *would* have occurred without the project. Baseline deforestation rates, which are built from these counterfactuals, may therefore be the most important component of a REDD+ project design document.

Before getting into what past research has shown of these baselines, it is important to clarify how they work in practice. Critical to the need for baselines in these projects is that the production of carbon credits for sale in any voluntary or compliance market in the world is proof that *the emissions reductions would not have been generated without the project.* The term of art for this in the carbon credit world is that the reductions are "additional." Nobody wants to pay for something that would have happened regardless of their purchase, and this purchase does little good for the environment. As a result, this idea of a project being *additional* is central to the value proposition of carbon offsets, including those produced by REDD+ projects. In order to show that these projects are producing *additional* greenhouse gas reductions, then, project developers have to show what the counterfactual, or "without project" deforestation scenario, would have been over time. Future measurements of actual forest cover and deforestation and forest degradation rates are then compared against this counterfactual in order to generate carbon credits for sale (see Figure 7.1). While the exact methodologies used for developing the baseline differ between projects, the key idea linking baselines and carbon credits is the following: if the with-project deforestation rates are shown to be lower than the without-project deforestation rates were predicted to be, then the project can generate carbon credits according to how much those rates differed.

Determining a counterfactual is not a straightforward process, and different REDD+ methodologies require different processes for baseline development, according to how deforestation and degradation is predicted to proceed. Some have advocated using a "Business as Usual" (BAU) baseline based on an average historical rate of deforestation in the project area over some established period. The definition of that period can yield widely varying baselines.

Others argue that this BAU method over-emphasizes the period selected, and that this punishes the communities who have limited deforestation in their territories in the past, but whose forests are now under threat. As an alternative, then, some methodologies also integrate into the baseline the historical deforestation rates from a "reference area" generated from around the project area that, in theory, integrates the deforestation threat to the project area as well, even if there has been little deforestation there in the past. This was the theory behind the methodology used to develop the deforestation baselines for the BIOREDD+ projects. The project design document also contains a prediction for the number of credits the project is anticipated to generate based on the baseline and the anticipated successes of project activities in reducing deforestation and degradation in the project area.

Figure 7.1.



N.B. Project REDD+ baselines are permitted to be constructed in several ways, according to the methodology used for the project and the counterfactuals assumed in this methodology. The essential goal is to predict, generally relying on historic measurements as in these examples, how much C02 would be emitted based on deforestation and degradation trends in the project area into the future. The difference between that prediction and the actual (or average actual) emissions is what produces carbon credits (B.) Forest cover has to be measured over several periods before the project in order to develop this baseline (A), which is typically done using satellite images. Projects may also rely on a reference area larger than the project area to generate an emissions baseline, as is the case in the BIOREDD+ project studied.

The relevance of the assumptions underpinning the models that produce these baselines for the project area is difficult to assess without spending substantial time on the ground. The validation and verification auditors – who generally only spend at most a few days at most on the ground – are not actually asked to assess this fit, however, but instead look only at whether the project developer adhered to the methodological guidelines for the project, putting full trust, therefore, in the rigor and appropriateness of the approved methodology for generating a baseline that reflects realities on the ground. After an accredited auditor conducts an audit for the validation or verification of a project, she generally comes back to the developer with a series of recommendations to make the project design document conform more closely to the requirements of the methodology. Once the project developer has addressed these concerns or explained why the concerns cannot be addressed, the project is approved, and the deforestation baseline becomes established as the official counterfactual against which future measurements will be compared. Within five years following the official validation of the PDD, the project developer must return to VCS to request a project *verification*. The verification process requires another series of forest measurements to assess how the project has done against its baseline to reduce deforestation.

Some have argued that this construction of carbon credits based on a counterfactual is inherently flawed and unable to produce anything that is in fact verifiable. Lohmann, for instance, argues, that the emphasis on improving the rigor of baselines and plausibility of counterfactuals is missing the point: "The problem," he argues, "is not 'bad baselines' but the concept of counterfactual baselines itself" (Lohmann, interviewed in Lang 2016). The

abstraction of baselining is an important moment of dis-embedding virtual carbon credit assets from the realities that these purport to represent, such as changes in community forest management. The necessary abstraction from an "original form" to that of a fungible product for sale – "liquid nature," as Lohmann describes this fungible virtual product, created through "making things the same"– means only a few experts can be trusted to determine the value of what is being created (Lohmann 2016; MacKenzie 2009).

Lohmann's comment was responding in part to a study that found that two REDD+ projects – the Maï Ndombe REDD+ Project in the Democratic Republic of Congo and the CAZ REDD+ Project in Madagascar, worked as " 'virtual emission reduction machines,' designed to inflate the production of carbon credits" (Seyller et al. 2016, 231). Central to this inflation is the setting of "convenient" baseline scenarios that can help generate sufficient credits to, at minimum, cover the high cost of the project development (Seyller et al. 2016, 235). In the case of the Maï Ndombe REDD+ Project, the developers used a reference area that was much more heavily populated and much closer to central commerce centers than Maï Ndombe, with different policy contexts and drivers of deforestation (Seyller et al. 2016, 237–38). In the CAZ Project, the researchers found that deforestation drivers and rates in the reference and project areas differed, yet the project developers assumed the same rate of deforestation across both areas (Seyller et al. 2016, 240). This resulted in the illusion that deforestation had been reduced by 50% in the project area without anything changing (Seyller et al. 2016, 240).

Other research has shown that private, for-profit companies developing REDD+ projects also tend to select areas that are less threatened for their projects than NGOs less interested in the carbon credits (Delacote, Le Velly, and Simonet 2020), suggesting that these private developers anticipate generating carbon credits despite their project areas not facing as great a threat to the forest precisely because the reference areas they use as baselines show higher deforestation trajectories than the project areas. Staying out of areas where deforestation risks are higher – often also areas where social conflicts are heightened – is clearly a less risky bet for their business venture.

Ultimately, these decisions point to the fact that these projects "do not structurally change the local economy characteristics which drive deforestation" in the areas where they occur (Seyller et al. 2016, 231), meaning that NGOs that choose to work in areas that are facing higher rates of deforestation and threats than areas around them are unlikely to be able to change that and generate carbon credits. As a result, then, the combination of biased selection of project areas (c.f. Delacote, Le Velly, and Simonet 2020), combined with the development of favorable baselines (c.f. Seyller et al. 2016), particularly through the use of reference areas, have contributed to the generation of "hot air" forest carbon credits from REDD+ projects. Indeed, rather than carbon credit creation being limited by the context of the given place, it appears to be limited primarily by the funding needed to hire a talented consultant to generate a convincing baseline – or to warn off an investor from committing to REDD+ in a place if significant carbon credit production is unlikely. In the case of national level REDD+, where baselines (known in the national context as "forest reference emission levels" (Gutman and Aguilar-Amuchastegui 2012)) are scrutinized by many other countries, the deliberate sleights of hand used to generate favorable baselines have been more closely examined and criticized (c.f. Romijn et al. 2013). These same decisions favoring the creation of carbon credits regardless of realities on the ground are much less likely to be scrutinized at the project level (Dezécache, Salles, and Hérault 2018).

4 REDD+'s affirmative commodity chain

Even recognizing the space that these projects offer for manipulating counterfactuals to the favor of project developers, it would seem that with all of the layers of complexity of REDD+, several of which are designed to serve as checks on projects that are not in practice reducing deforestation, it would be hard for projects like those of BIOREDD+ to "slip through" to receive credits that are poor representatives of what is actually happening on the ground. Yet this is a more understandable outcome when examined from the perspective of the incentives, desires, and power dynamics at play within the carbon credit commodity chain. Most critically, there is nobody in the chain of certification involved in the project that is incentivized to stand in the way of a project generating credits. Those concerned about the reputation of REDD+ generally, and the larger climate change consequences of crediting projects that have generated no tangible change might in theory serve as checks on this phenomenon. Yet even they are likely to stay silent about these holes if they either see some funding going to communities as a benefit of some type, or if they fear their critique will get in the way of advancing the REDD+ concept. Milne and Mahanty observed these dynamics within the bureaucracy of REDD+ in their study of REDD+ in Cambodia:

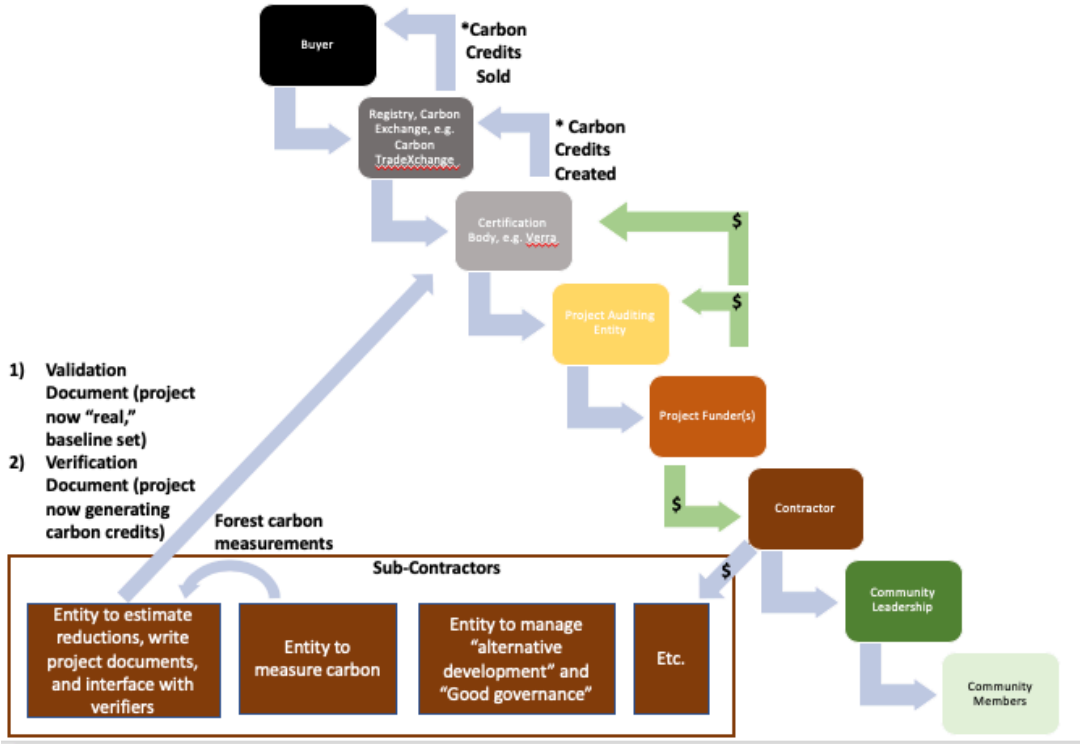
> (T)he demonstration of accountability and quality are essential to value generation. Without this, carbon credits cannot be considered as "trusted and fungible", nor can they acquire value-adding properties like being "low risk". Those who implement the bureaucracy, therefore, are compelled to uphold its constructs. This leads to performative behaviour on the part of project proponents, who must demonstrate compliance with rules that do not necessarily fit the local context well. It also gives rise to power dynamics, in which the work of validation can only be practiced by vetted experts; criticism is poorly tolerated; and the rules for compliance keep changing. (Milne and Mahanty 2019, 141).

Moreover, even if those who got to the ground were suspicious of the gap between deforestation on the ground and the carbon credits being generated by the project, it is difficult to prove any wrongdoing, as the only opportunity for critique is of the execution of the methodology, not of the methodology itself. Even within the given methodology used, the developers of the project design documents also have significant discretion in adjusting various factors to the given context in a way that would produce favorable outcomes. It is difficult for a lay person to parse and critique these decisions, especially when the same people making them are setting the rules governing the whole process themselves.

There are numerous actors involved in the creation of these credits, including where projects are not changing much on the ground. The transactions necessary to create these carbon credits can be thought of as a commodity chain, running from forest communities, or even households, to voluntary carbon market buyers (See Figure 7.2) (Mahanty, Bradley, and Milne 2015; Corbera and Brown 2010). Many intermediaries, measurements, calculations, and funds are required to generate "avoided deforestation" and to translate this into "verifiable" carbon credits (Bumpus 2011; Leach and Scoones 2013). The details of the commodity chain varies somewhat by project, but in all cases, "experts" that have created and defined carbon markets have created a set of stages with rules the actors along the chain must follow, including defining how they interact with one another and the rituals that they must carry out in this process (Corbera and Brown 2010; Gupta 2012; Lövbrand 2009). The motivations of funding and the desire to have the concept of REDD+ succeed for the actors along the commodity chain – the basis of their jobs – are foremost in defining the interactions. As a result, despite the high costs of validations,

verifications, and other additional project certifications for extra benefits such as biodiversity or community development, these processes are no guarantee of stories on the ground matching to those on carbon credit exchanges continents away. Indeed, the "global ways of seeing" that make visible the carbon, biodiversity, and community benefits of REDD+ necessarily "render invisible complex on-the-ground realities" (Gupta et al. 2012, 728). As the auditors have every reason to validate and verify the projects if they want to be tapped for a future project, this obscurity supports their work.

Figure 7.2. Carbon Credit Commodity Chains of Reductions in Tropical Deforestation



As Figure 7.2 illustrates, the production of carbon credits from avoided deforestation projects for the voluntary carbon market involves many moving pieces and high costs. Typically, there is a funder (1) who will help get the project off the ground. This funder may also serve as the project proponent, or may fund another entity (2), or the community itself (3) to fill that role. The project proponent typically requires support from a range of other organizations to fulfil the technical requirements of REDD+: one entity is often in charge of the measurement of carbon (4), another in charge of the process of creating a project design document that adheres to the methodology selected by the project proponent (5), and perhaps others to manage the process to try to reduce deforestation on the ground through alternative development projects and "good governance" efforts (6).

The entity tasked with creating project design documents is particularly central in this process, as it uses satellite imagery and inputs from the forest carbon measurement team to design a deforestation baseline against which future changes will be judged, and upon which estimations of future reductions are built. Though they must adhere to a particular methodology in this process, the contractor can adjust all the inputs to this process to develop the most beneficial baseline for the project. A project auditor ("validation/verification body") (7) then

assesses the project design document and visits the field site of the project for a few days to determine whether the design documents reflect the reality on the ground. The auditor typically asks for some changes in the project design document, which the project proponent and their contractors must address, and then generally grants the project validated status. This validation means that the project has actually begun, and the project is registered within a certification body such as Verra (8). The project must then be *verified* within a period of five years or the validation lapses. The verification process, often carried out by the same organization who led the validation (5), includes another forest carbon measurement, and it is this that allows for the creation of carbon credits, via the comparison of the baseline to the verification measurement. A certain pool of these generated credits is left in an "insurance" buffer against future failures, managed by Verra (8), while the rest are put on a market (9) for sale. Buyers (10) – whether organizations or individuals – can then buy these credits from these markets. Variations on this basic commodity chain exist, typically in the form of fewer or additional middlemen. Project proponents, contractors, or funders may change, and corporate buyers may set up special contracts to purchase credits at a fixed price before they are free to the rest of the world on a market. In this chain, the project developer pays the contractors and the auditor. The registration body, Verra, in turn, takes a cut on every credit issued to the project.

This alignment of financial incentives across the REDD+ commodity chain – the buyer who wants to help their company or client meet their "net-zero" goals, the auditors and contractors who want to keep their jobs or clients, the verifier that needs to approve projects to get their fees and keep their business going, and the community members who could use a bit more cash – represents the elegance of REDD+ for its designers, and its downfall for those who understand the stubbornness of deforestation on the ground. Where all these pieces of the supply chain work except that key piece of changing deforestation, a project can still generate credits, barring the project lacking the resources to bring in an experienced project design document consultant who will rely on the right mix of methodology and modeling inputs. The conflict inherent in having "third-party" auditors paid by the project developers is present in other voluntary supply chain certification programs as well, such as Forest Stewardship Council's FSC certification (Mehta 2020). The lack of checks on both REDD+ and FSC certifications has inspired environmental investigative groups and individuals to take on an external watchdog role (FSC-Watch 2014; REDD-Monitor 2021; Greenpeace 2021). Interestingly, some of those promoting deforestation reduction policies at the international level turned to REDD+ as a result of exasperation with the race to the bottom that can result from these other supply chain certification schemes, failing to appreciate that the same incentives are at work within REDD+ supply chains.

The complexity of many of these REDD+ methodologies and project development processes also limit the possibility that an outsider could question the discretion of the experts designing the project and carrying out the carbon measurements. There are only a few people in the world who fully understand all the combinations of equations that might be used to calculate carbon credits. Those on the frontiers of these methods are typically using their skills to generate value for themselves and their clients through carbon projects, rather than auditing carbon projects. This situation is not unlike the challenges that a financial regulator like the Stock Exchange Commission has in keeping up with the activities of financiers who are constantly innovating new products and tools to create value, struggling to align regulations with this fast evolution. Moreover, the auditor has little power to question the gap between what is happening on the ground and the project development documents; rather, most of their time is spent assessing whether a project developer has accurately followed a methodology that was already approved.

One could argue that a check on this system is that all the actors in this chain are motivated not only by immediate funding, but also by maintaining an image of legitimacy for REDD+ and the carbon markets where REDD+ credits are transacted. The notion that these actors should be motivated by the integrity of the system is part of what creates trust in these institutions, suggesting that their interest would also encourage them to call out the creation of questionable carbon credits. Many of the key actors within this chain are motivated in their work by the possibility of reducing deforestation and supporting communities, and they are able to spread enthusiasm for and trust in their work by ensuring others of their trustworthiness. The actors I interviewed with key positions along the REDD+ supply chain recognized that, despite their efforts, validations and verifications are far from failproof. However, they also saw REDD+'s ambition to do it all as extremely ambitious, or even unachievable; for them, at least generating credits that could, in theory, fund community activities, which was a worthy goal in and of itself. Still others have argued that having "rubbish" offsets in the voluntary market is not really a big deal, asserting that "sustaining political will is more important than a myopic obsession on accounting" (Streck 2021). This view is summarized by Charlotte Streck in her post about integrating voluntary carbon markets into the Paris Agreement as follows: "Despite all concerns about greenwashing, corporate climate commitments should be encouraged and welcomed. Not all of them may be "gold standard" – in fact, some may be rubbish – but these commitments are *voluntary* and, by definition, *additional* to national regulation" (Streck 2021). In this particular piece, she did not explain how the compliance market would avoid the same "rubbish" that turns up regularly in the voluntary market, when there is even greater pressure to create credits.

Streck's comment does point to another key power dynamic in the chain of affirmation needed to legitimize REDD+: those creating the rules for REDD+ not only have to ensure it is seen as developing "legitimate" carbon credits, but also have to make sure that their rules can generate carbon credits for project developers at the end of their investments. Without investor confidence in their ability to generate carbon credits, the concept falls apart. In other words, those setting the rules of REDD+ have to normalize it not only for the buyers, but also for the sellers. Risk scares off investors or makes them ask for prices that the market cannot sustain, and the work of these experts and rule makers for REDD+ is therefore to create a lower risk, stable market despite the fact that the forests in which these projects take place are anything but stable, and reductions in deforestation anything but certain. Therefore, the dozens of technical adjustments that the project developers can make in creating a project, including choosing the methodology that defines the creation of the baseline, and all other decisions about building that baseline, are an alternative way to create carbon credits veiled in legitimacy.

Importantly, none of the REDD+ project developers and promoters within various parts of the value chain I have interviewed or read interviews with have voiced concerns that REDD+'s complexity and reliance on experts needed to generate carbon credits might *conflict* with improving the wellbeing of participant communities, or even constrain the possibility of reducing deforestation in the future. At most, they have framed the greatest possible effects on communities when carbon credits are not created as a "no benefit, no loss" scenario.
In the section that follows, I explore the process of carbon credit creation in BIOREDD+, and reflect upon how money, unable to buy reductions in deforestation, could buy the appearance of reductions in deforestation by employing PhDs and advanced technologies.

5 BIOREDD+ Complexity

The complexity of the BIOREDD+ projects has been described in Chapters 5 and 6. In Chapter 5, I show how the Chemonics' decision to move quickly in the project and rely on the latest technologies and carbon accounting methods, rather than on participatory community monitoring, limited their time and funding to make investments in alternative livelihood projects. In Chapter 6, I then argue that these decisions, aimed at making the BIOREDD+ project more compelling to external actors, heightened distrust among Los Cocos' residents of community leaders and the entire Community Council governance process.

This complexity, wielded by experts, built confidence in the project's legitimacy, and the legitimacy of the carbon credits it created. A brochure USAID and Chemonics developed to pitch the project to potential carbon investors: "Active sensors using radar technology can penetrate the forest canopy and help estimate tree volume and structure with a combination of long and short-wave detection. Combining LIDAR with SAR (a form of radar) has not yet been applied to REDD+ projects anywhere else in the world and takes carbon estimation to another level" (Chemonics International Inc. 2013). Here USAID attempts to convince potential carbon investors of the scientific rigor of their tools, suggesting that this novel technology can help the project to succeed and reduce risks and uncertainty. It also illustrates the deliberate decision to make this process more complex.

The program's Final Report reiterates this: "Estimated carbon emission reductions are the Holy Grail for all REDD+ projects…The calculation is complex and has to strictly adhere to the methodology, in this case VM0006. Given this, experienced carbon practitioners…(ran) more than 120 iterations of the model to ensure high levels of accuracy. More than just a mathematical exercise however, credible net carbon emission reductions must be generated" (Chemonics International Inc. 2013).

The "experienced carbon practitioners" running "more than 120 iterations of the model" is not just about rigor, though, but illustrates the power of these practitioners to manipulate the space between reality and carbon credit production to the benefit of the investor. In putting this in their brochure, they are also signaling to those investors that, using their experts, they will be able to get them the most carbon credits out of this project. The last clause, moreover, suggests that the *modeling*, rather than anything that takes place on the ground, *per se*, is what generates carbon emission reductions. In other words, this paragraph admits that the carbon credits are their own creations, rather than a translation of what is occurring on the ground to the carbon credit market.

The Los Cocos case illustrates how the dependence of REDD+ on experts to create carbon credits that are considered legitimate representations of what is occurring on the ground contributes to conflicts between REDD+'s multiple purported goals. On paper REDD+ is supposed to unite community, biodiversity, and climate goals; in practice, where it is focused on the carbon market like the BIOREDD+ projects were, it is poorly designed to do any of these things well (Wunder 2001). This was echoed by Marco, the leader in Los Cocos most engaged in the BIOREDD+ project: "We have received this community and biodiversity certification, but we are not connecting any of what we are doing with the project to its values for the community and biodiversity. This project is all about carbon, which is a mistake if this is actually supposed to help lead to conservation. People here don't care about carbon."

Marco believed that more people in his community would care about protecting the forest if they could connect it to the things most pressing to them – the habitat for their favorite foods and forest products, for example. If these had been the focus of BIOREDD+, rather than creating

carbon credits to offset the fossil fuel use of companies, there might have been more buy-in from community members. Ironically, of course, thought the focus and funding for the project has primarily been around carbon to date, there is no certainty that the project will mitigate climate change.

The BIOREDD+ program has illustrated one other problem with the complexity of REDD+ -- the challenge of getting local experts to participate and benefit. USAID had mandates to preferentially hire Colombian-based NGOs in order to "build capacity" in-country. As such, Chemonics had initially subcontracted with a Colombian firm to develop the baselines for the BIOREDD+ projects' validations. However, according to the directors of the project, that did not work out as hoped, with the company "messing the whole thing up." Chemonics and USAID scrapped that company's work and instead used a US-based firm to develop the entirety of the project design documents, arguing that there was no alternative in Colombia able to undertake this analysis. They also relied on a US academic to measure forest carbon via a LIDAR plane, arguing there were no Colombian alternatives.

Unfortunately, not only were those who were able to study these topics at top universities in the US better poised to know how to conduct these analyses correctly and generate carbon credits from them, but they were also better poised to generate confidence in their conclusions because of their more "elite" expertise. As such, for project developers with the resources to spend on more expensive contractors, it is likely that, barring mandates to the contrary, they are likely to turn to the companies that have experts with longer CVs, who are therefore more likely to come from the countries where these technologies were developed. While there is a sea of Colombians who could also conduct this work if trained, it is difficult for them to be trained if not given the opportunity.

6 Counterfactuals and reference area

Over the last year of the BIOREDD+ program, the leadership of the BIOREDD+ team focused most of its energy on getting the projects validated. This step required creating a thick project design document (PDD) and convincing a Rainforest Alliance audit team that the projects could do what this document suggested in terms of reducing deforestation and degradation, while benefitting communities and biodiversity. The project design document included the deforestation and degradation baselines for Los Cocos. The baseline was built on historical trends (via satellite images) and present forest carbon measurements (via LIDAR and SAR, calibrated with parcels) in not only the project area, but also in a reference region covering other parts of the Pacific Coast. EcoPartners then put these into a model to generate a "business as usual" trendline for deforestation and degradation into the future within the project area.

The PDD also laid out the larger social and economic context of the project, identifying primary drivers of deforestation and degradation, and explaining the basics of the governance situation in the project area. EcoPartners has experience in what they describe as "validation strategy," or the ability to massage the messages of the project to get them through validation by putting the smoothing touches on performances of technical rigor, community enthusiasm, and the idea of the economic and governances plans reducing deforestation and degradation.

The most important factor in the development of the BIOREDD+ program that will help Los Cocos' project generate carbon credits, despite the program itself not driving change on the ground, is the reference region the consultants developing the program's PDDs have chosen for the Los Cocos project. This reference region contributes to the development of the baseline and is comprised of Community Council lands in regions notorious for intensive timber harvesting.

The size of the rivers and bays in the reference region allow large boats to maneuver far up into them, where they collect thousands of logs and boards milled locally, and, using false permits, carry them north to the port city of Buenaventura (Restrepo 1996). The population pressure on these regions is much higher, too, with cities between 13,000 and 30,000 people – nearly ten times Los Cocos's population – sharing a border with the reference regions, and urban-dwellers relying on the reference regions for agriculture, pasturelands, and fuelwood. Coca cultivation and gold mining with heavy machinery have had a consistent presence in these areas, which are notoriously under the influence of armed groups. For these reasons, the pressure on the forests in the reference region has long been greater over the reference period than in Los Cocos, where the physical constraints to accessing wood are higher and the population pressure lower. Therefore, when the baseline rate of deforestation was developed for the BIOREDD+ projects, it included all of these reference areas, meaning that the "business as usual" rate of deforestation calculated was significantly inflated over that of Los Cocos.

The selection of these reference areas does not indicate that BIOREDD+'s consultants "cheated," though they did have to stray somewhat from the procedure dictated by the methodology, since, as the consultants put it in my interview with them "there was not enough forest left in those areas to meet the methodology's requirement." The consultants ended up choosing reference areas that have similar population sizes, governance types on paper, and the same kinds of drivers of deforestation to those of Los Cocos – all requirements of the methodology. Yet the methodology failed to account for factors like larger populations nearby, the technological ease of getting wood out of the rivers, or the *de facto*, rather than just *de jure*, governance context.

As a result of these divergences between the reference region and Los Cocos, then, the counterfactual "without-project" land conversion scenarios predicted in Los Cocos are well outside the range of what is presently imaginable or even feasible in the river. Indeed, the project's baseline, which passed validation, predicts the appearance of around 3000 hectares of pastureland and cropland between 2013 and 2018 across the river, and an increase in degraded forests due to timber extraction over that same period of 4500 hectares. My household surveys and field work suggest that very little, if any, land within the project area is being converted from forest to cropland today – what is being used is already in an ongoing swidden rotation, and a growing amount of land is being abandoned by community members migrating to the city. No land was being converted to pasture, as there are no animals pastured currently in the community. My household surveys, meanwhile, suggested that degradation from selective timber harvests over that period would be less than one tenth of that anticipated in the baseline. With these overestimates of deforestation within Los Cocos predicted in the baseline, even when BIOREDD+ changed deforestation trajectories within the project communities only a little, the *actual* business as usual activities were significantly below the rates of deforestation predicted by the baseline that the reference area generated, thus allowing for the creation of carbon credits based on this difference.

Thus, the performance of rigor in setting the reference region would suggest that Los Cocos is comparable to these other Community Councils in all ways that matter, though the reality, as we found in these analyses, is quite different on the ground. These results demonstrate the inherent limitations of REDD+ methodologies built around counterfactuals and reference regions, and how they can be used to perform "rigor" and "conservativeness" even when the numbers they produce are misaligned with realities on the ground. Differences like those seen between Los Cocos and the other communities in the reference area will almost always exist

between real communities, in contrast to the theoretical spaces affected by deforestation forces in a more neat and consistent fashion.

The multiple performances that have established the creation of this reference area as acceptable –project consultants performing for project auditors, the developer of the project's methodology performing for USAID, and the earlier performances of the economists who designed REDD+ for those who care about climate change – have helped Los Cocos generate carbon credits in the absence of any changes on the ground attributable to the project. In late 2017, contractors from the US carried out the second LIDAR measurement across the Pacific to verify the BIOREDD+ projects, which had by then been rolled over into another USAID grant. The verification found that the project was "producing" some 297,488 tons of carbon per year, or that between the time it had been validated and its verification, it had led to the sequestration of some 640,688 tons of carbon. EcoPartners is not required to reveal the specifics of their modeling that generated this outcome. They did not respond to questions about why the project ultimately generated more credits than originally estimated and, according to sources in the community, have not yet explained the source of this discrepancy to Los Cocos's leaders yet either. The gain points to the high levels of uncertainty in the many different variables within these models. By the end of 2020, the Los Cocos REDD+ project had sold 424,438 of these credits to the likes of Chevron, Petrobras, Biomax, and Prodeco (Verra 2021b).

7 Incentives along the BIOREDD+ commodity chain

In the BIOREDD+ project, as in most REDD+ contexts, there were few along the carbon commodity chain disincentivized to generate carbon credits. Those who were skeptical of the projects at the start were leaders, like those in La Hormiga, who worried that they would be asked to sacrifice too much for generating these credits. However, had they known that they could receive these credits without changing much, they may have come to a different decision on whether to accept the project.

In Los Cocos, people hoped to receive some type of payment or compensation through REDD+. Those who cut wood more regularly in particular were interested in what the program might offer them, asking me early in my fieldwork whether the rumors they had heard about this compensation were true. There was little clarity about how much funding BIOREDD+ might generate for the community, or how it would be used, but people had little incentive to sabotage the possibility of obtaining this funding.

USAID and its contractors, as described in Chapter 4, prioritized carbon credit creation above all other parts of the project, as this was the novel aspect of the enterprise that would differentiate their effort from past integrated conservation and development projects and serve as a model for future REDD+ projects in Colombia and for USAID. They worked to ensure that as many carbon credits as possible were created through the process: their decisions to rely on LIDAR measurements, invest in a high-end consultancy to develop their project documents, and select the reference area methodology they did reflect this focus. Appreciating the subpar record of actually changing things on the ground, or even supporting the communities onto a trajectory of change, the contractors for BIOREDD+ prepped the community leaders who would be tasked with welcoming auditors into their river. Leaders were told how to select individuals for the validators to meet – primarily those who knew what REDD+ was and had participated in aspects of the project, or those who could represent drivers of degradation presently within the community (e.g., timber harvesters). According to notes from the validation preparation meeting, community leaders were told "Don't lie, but be strategic." This was not a hard pitch, given that

everyone understood that a good audit experience was key to generating funding. Performances required to make these forests legible therefore included not just the PhD-holders in the carbon credit supply chain described below, but also the rehearsed performances on the ground of community members in order to get the project through validation.

BIOREDD+'s contractors also performed the effectiveness of the projects and therefore the carbon credits via statistics. In the contractors' quarterly reports to USAID that were then integrated into brochures and other marketing material for BIOREDD+, the number of people that were "trained" in a particular task, often assumed based on attendance at a meeting purportedly about learning that task, were paramount. As a result, the sign-in sheets for these meetings were sacred. One leader in Los Cocos lamented that he feared the sign-in sheet was more important than the content of any meeting for the aid contractors.

Rainforest Alliance was hired to audit the BIOREDD+ project for VCS (Verified Carbon Standard, now Verra), and CCBA (The Climate, Community & Biodiversity Alliance) validation. The Rainforest Alliance auditors traveled to Los Cocos in the fall of 2014 to assess the situation on the ground. After their two-day visit, the audit team requested that the BIOREDD+ team make adjustments to the project plan documents across the portfolio. After one round of these, all the BIOREDD+ projects, including Los Cocos', were validated and officially registered under the Verified Carbon Standard. Three years later, a very similar process was undertaken for the verification of the projects. According to a lead contractor on the project, they ran the model that would spit out the number of carbon credits that the project would generate many times until they landed on the configuration that would produce the most credits.

In the case of Colombia, the pressure from buyers pushed down the commodity chain of REDD+ to produce carbon credits is more intense than in places with weak voluntary carbon market incentives. By the time the BIOREDD+ projects were verified, there was already a push to get new carbon credits onto the Colombian voluntary market, which would reduce costs for companies in response to the country's carbon tax, and allow the government to demonstrate that its program promoting offsetting to reduce deforestation was working. Having the government and large companies across the country invested in the creation of carbon credits thus has provided additional impetus to the creation of carbon credits regardless of the practices on the ground, contributing to a rush of carbon cowboys into the country to take advantage of these favorable conditions (Durschinger, Sarmiento, and Menon 2021). It is for these reasons that Colombia offers a useful case of the pressures likely to be put on communities to develop REDD+ projects in a market with higher carbon credit demand, like some hope that Article 6 of the Paris Agreement, once finalized, might create.

There was great, though fast-fading hope among BIOREDD+ project developers at the beginning of the project that the voluntary carbon market would gain strength over the following years as more companies sought ways to reduce their climate impacts, and the market might even be propped up by new UNFCCC agreements. The market never materialized, however, and prices for REDD+ credits on the global market stayed well below the estimated average cost to generate those credit, which would have made any real business insolvent.

Seeing that global voluntary carbon markets were in no position to support REDD+ in Colombia, then, those with an interest in the success of local forest carbon markets started making calls to the government offices in Bogotá with access to purse strings. Knowing that Colombia had a national interest in making commitments to reducing deforestation in order to keep receiving funding from bilateral and multilateral forest climate funds, the REDD+ lobbyists, owners of REDD+ investment funds and certification programs, developed a

promising plan with the government ministry in charge of taxes and the members of congress they needed on their side. The government would pass a fiscal reform that would include a carbon tax on large users of liquid fuels and natural gas, which would start at 15000 Colombian pesos (approximately $5 USD at the time) per ton of emissions from these fuels and climb over time. Six months later, a decree was passed by the Treasury Department that companies could get out of paying the tax by instead purchasing offsets of these emissions that were produced from projects within Colombia. By becoming "carbon neutral" through these offsets, the companies would no longer have to pay the tax. If they could negotiate offset purchases, these offsets would save their companies significant resources. As soon as word got out about this offsetting option in the tax reform, airline and petroleum companies, and other businesses operating in the country burning significant gas and liquid fuels, including mining companies, began looking to strike deals to purchase credits at a favorable price. They came to the BIOREDD+ teams and community leaders to negotiate purchase prices on bundles of carbon credits that had not even been officially created yet, as the projects were still undergoing verification at that time. This resulted in the spectacle described in the Introduction: the signing ceremony in coal country with President Santos, the US Ambassador, coal company executives, and the Colombian NGO managing the relationships between the BIOREDD+ project developers and the communities.

What was ultimately needed to create a robust "voluntary market" for REDD+ in Colombia at this moment, then, was for the government to subsidize this market and force companies to participate in it. Even so, the time needed to create, validate, and verify a project have kept offset supply levels lower than demand thus far: as of the start of 2019, some 55 million tons of offsets annually were thought needed to make companies carbon neutral, while only 9 million tons were being generated through REDD+ and other qualifying projects in the country. The credit verification process that Colombia decided to develop itself, as well as the platform for describing and trading these projects, were years overdue. Carbon cowboys have returned to the country to take advantage of the excellent money-making opportunity (Durschinger, Sarmiento, and Menon 2021, 12).

Despite being slow off the blocks, this incentive scaffolding created by the Colombian government fit squarely in debates in the country – and in many other countries – about the most effective way to move dollars toward social and environmental change. Should the government have primary control over social and environmental spending, or is this best managed by the private sector? Those who saw the REDD+ setup in Colombia as a public-private partnership innovation to be replicated in other tropical forest countries believed in the power of the private sector control over the destination of dollars aimed at community support and reducing deforestation. But the government could have left out their tax loophole, collected the 15000 COP per ton of emissions, and invested this directly in efforts to help reduce deforestation, avoiding all of the steps and millions of dollars in costs needed to make carbon credits legible to the voluntary carbon market. Indeed, that was the plan when the tax was first created, before the passage six months later of Decree 926, the carbon neutrality offset loophole.

The slow pace of development of REDD+ projects in the country has tested the government-led theory of change because there remain relatively few opportunities for companies subject to the tax to go completely carbon neutral, meaning that companies are in practice still paying the tax on most of the emissions subject to the tax. The government's use of the 440 million USD generated by the tax between 2017 and 2020, however, has further disillusioned those who have seen lackluster results of government spending in the past, with its reputation of rarely reaching

the ground: as of the end of 2020, none of the 440 million USD had been budgeted to the specific recipients for which the funding had been designated, including environmental projects, and it was unclear where it had ended up (El Espectador 2020). A promoter of REDD+ in the country suggested this might even increase the likelihood that companies subject to the tax would avoid it through carbon neutrality efforts: "This lack of certainty in how the carbon tax is being used to mitigate environmental issues can lead to companies considering more transparent alternatives, such as the purchase of carbon credits to neutralize emissions" (Durschinger, Sarmiento, and Menon 2021, 9). She and her coauthors suggest that the Colombian REDD+ carbon market is "revolutionizing" rural development – though admitting such a revolution is currently an "opportunity" more than a reality: "More than 37 million hectares of land is collectively owned by Afro-Colombians and Indigenous (sic) in Colombia. This creates a large pool of potential investment opportunities…However, these projects require support and specialized expertise to become 'investment ready'…" (Durschinger, Sarmiento, and Menon 2021, 7).

Decree 926's use of government power to promote privately funded REDD+ projects is an interesting departure from the general direction that many REDD+ proponents have argued that REDD+ ought to head. The need to prevent leakage from projects, combined with the poor results of REDD+ projects and the voluntary market to date prompted many REDD+ proponents by the mid-2010s to write off projects as not as worthy of research investments going forward because they were simply an initial steppingstone in REDD+ toward jurisdictional and national level REDD+ strategies. The theory of change of jurisdictional and national REDD+ being prioritized over project REDD+ is that bigger funding investments and combinations of policy strategies across larger geographies would be capable of altering deforestation dynamics at lower cost than smaller privately financed projects. Interestingly, however, many are pinning their hopes for REDD+ on funding coming through government-instigated private sector investments in REDD+ projects like those in Colombia, including the CORSIA aviation emission offset program of the International Civil Aviation Organization, and Article 6 of the UNFCCC.

8 Discussion

The fierce and long-running debate about the Paris Climate Accord's now infamous Article 6 mimic the climate justice concerns at the heart of REDD+ projects, including BIOREDD+. While much of the Article 6 debate centers on avoiding double counting of emissions and which countries can claim credit for which reductions, there are also many who oppose the idea of opening up such large spaces for offsets, allowing direct emissions to continue in exchange for potentially impermanent reductions whose "reality" and "additionality" can never be fully trusted – like in the case of BIOREDD+, other REDD+ projects (e.g., (Seyller et al. 2016)), and the Clean Development Mechanism projects that came before them (Cames et al. 2016).

The purchasers of the BIOREDD+ project credits included Glencore-owned coal company PRODECO, and oil companies Chevron, BIOMAX, PRIMAX, and Petrobras, among others. Without the 2016 carbon tax, they would have paid nothing to these communities, and nothing to the government, so the carbon tax was certainly better for the government than having implemented no tax. One has to wonder, however, whether the proceeds of the tax could be more effectively and fairly spent enforcing environmental laws that reduce the impacts of these industries on surrounding communities (Gilbertson 2021).

The dependence of certain environmental investments on the goodwill of polluting corporations through offset market as in the case of BIOREDD+, a notable component of the neoliberalization of conservation, has also had some perverse outcomes. As documented in

Gilbertson 2021, the environmental NGO contracted to work directly with the communities, for example, convinced communities uncomfortable with selling their credits to a mining company to contract with PRODECO, a subsidiary of Swiss mining giant Glencore (Gilbertson 2021, 32–33). This encouragement perhaps foreshadowed the NGO leader's departure shortly thereafter to become the head of a foundation created by national petroleum companies (Fundación El Alcaraván 2021). A few years later, though, Glencore decided to abandon its PRODECO mines in Cesar, Colombia, after a financial assessment in the midst of COVID showed it could not recoup the costs of restarting for several years. This also means the end to most of the company's investments in biodiversity and carbon offsetting. I was surprised to come across on social media a Colombian who runs a different environmental non-profit in the country lamenting the closure of two massive coal mines, given not only these mines' serious climate impacts, but also their impacts on the air, water, and livelihoods of populations around the mine. For this particular person, however, more important was that the PRODECO collapse meant less revenue for projects like tree planting or REDD+ across the country. Without companies polluting, and seeking to offset that pollution, whether voluntarily, or coerced to through tax incentives, REDD+ projects lose their funding source.

Given this context, further investigation is warranted of whether the carbon tax incentivized businesses to reduce their emissions, and whether the difference between the emissions cost under the tax versus under the offset purchases affected the extent to which companies made these investments. In other words, did having the possibility of offsetting for a reduced cost actually undermine the investments in emissions reductions that would have happened without the cheaper offsetting alternative? It is possible that many of the companies paying for offsets are those that would be incapable of incrementally reducing emissions without a major shift in their business plans, and that any investments they can make in the government through a tax or in communities through offset purchases at least makes continuing to invest in and rely on fossil fuels modestly less economically desirable, and thus a climatic benefit. It may also be that the opportunity to appear to be investing in community well-being through REDD+ offset purchases at a cost lower than the tax was more attractive to some companies than investing in alternative technologies that would actually reduce their emissions, thereby greenwashing activities that may have little climate benefits while pushing companies away from the very activities that could.

What then are the climate benefits of the Los Cocos project likely to be, making use of these funds from coal and petroleum companies? According to my conversations with community leaders at the end of 2020, there remains uncertainty about how the funding generated by REDD+ will be used. While there was a thought early on in the development of BIOREDD+ that the credits would be invested in activities to keep others out of the community and prevent more deforestation, such as through satellite technology or foot patrols, this had not yet been solidified as a plan even three years after the project verification.

Decree 926 and ongoing bilateral and multilateral investment toward reducing deforestation in Colombia have heightened the interest of REDD+ investment funds to support REDD+ projects in Colombia and enter negotiations with communities who might benefit from REDD+ projects. As a result, according to conversations with community leaders, Los Cocos has been working with Wildlife Works to carry the REDD+ project forward toward anther verification, while La Hormiga has been in negotiations with Terra Global Capital about the possibility of starting a REDD+ project to take advantage of the new market. Restrictions associated with COVID-19 have slowed all of these efforts, and there were no clear steps yet defined by the end

of 2020 on how either community planned to reduce deforestation with the support of these investors.

Those more optimistic about the capacity of these projects to empower communities while reducing deforestation may look at this project and its climate impacts differently. After all, USAID and Chemonics had, by the end of the project, turned their focus to generating funds that the community could rely on over a longer period, including for investing in activities that *could* reduce deforestation and degradation. They appear to have achieved that goal, with at least 500,000 VERs, which could bring in 1.5 million USD, nearly ready to be sold from Los Cocos's project. In the process, they managed to overcome one of the critiques leveled at REDD+: that the concept of additionality is unfair to communities who have conserved their forests over many years. Los Cocos is one of those communities that has relatively intact forests compared to many others in the region, as seen by the disparity between its forests and those of the reference region.

The use of this reference region that created such inflation in credits for Los Cocos, then, could also be interpreted as a way for the project to reward Los Cocos for its years of keeping its forest more conserved. As one leader in Los Cocos suggested: who is to say that Los Cocos might *not* lean the way of these other communities at some point, and that the presence of a project might not help at that point? If Los Cocos receives the 1.5 million USD it now appears it will from this verification, the funds could be put toward a range of useful ends, as identified by community members in our interviews – for education and health care, and for productive projects that could be more effective at addressing the needs of timber harvesters. Additional funding from future verifications could continue this trend. This future is hard to predict, as there are both encouraging and discouraging stories from around the world about the influence that such funding has had on communities, and little clarity about the direction the funds are taking in Los Cocos since they have not been disbursed yet.

There is a chance, then, that the support may help the community to overcome the distrust that has developed over the first phase of BIOREDD+ in the community leadership – or it might further degrade this distrust. The funds might also be invested in the same tools that people in the community have been buying themselves when they save up enough money, including outboard motors, diesel generators, gas stoves, chainsaws, motors or dredges for mining, savings for emergencies, and investments in children's educations. This uncertainty about the way the funds will be used is multiplied by local factors, including the mining described above, and high instability and insecurity in the region surrounding Los Cocos, resulting partly from the rocky implementation of the Colombian government's 2016 peace accord with the FARC, which attracted new armed groups into Los Cocos and surrounding rivers assert their power over the coca trade in the region. One leader in Los Cocos even expressed privately to me that he thinks there will be good results on the next verification because people have not been able to enter the forest where they would normally be cutting trees since armed groups are now fighting in that forest.

Extortion of Community Councils is also a regular occurrence, as leaders are threatened if it is discovered that the Council has funding in its bank accounts. Fondo Acción will therefore keep control of the funds and guide the communities through processes to determine their use. While this seems understandable given this situation of extortion, it also challenges the notion that the communities truly "own" the projects. While these potentially complicating factors cannot be fully addressed here, the larger point is that even with the success of generating these funds, there are not yet any assurances that these funds will produce either broad community benefits or reductions in deforestation and degradation across the community.

What lessons can be drawn from Los Cocos's experience for REDD+ more generally? One was well-described by one of the directors of the BIOREDD+: "This is supposedly a community-focused, -oriented, and -led activity – and no community in the world would be able to comply with REDD+ requirements." The fact that initial funding for BIOREDD+ came from bilateral aid enabled the project to create more benefits directly for Los Cocos than the many projects that rely on funding from private investors – and as the director points out, the performative requirements of these projects are typically far too expensive to occur without an outside investor. Yet the case also aligns with calls to reduce REDD+'s technological complexity and cost by using, for instance, cheaper measurement and monitoring efforts, such as relying on more readily available Landsat data (Hadi et al. 2018) and carrying out community level monitoring, which also involves community members more and clarifies for them what the project is doing (Danielsen et al. 2013; 2011; M. M. Skutsch et al. 2009). This comes into conflict with arguments suggesting that investing in highly technical measuring and monitoring is preferable for generating more and higher-value carbon credits, paying for itself many times over during the life of the project (Pelletier, Busch, and Potvin 2015; Di Lallo et al. 2017; Lusiana et al. 2014), but this case suggests that tradeoff may be worth it in some kinds of projects.

Interviews also suggest that community members in Los Cocos are tired of the parade of projects carried out by different actors that all seem rushed and incomplete. They are sick of projects raising and then not meeting expectations. They do not trust new individuals who come and promise grand opportunities. The study shows, as research in development projects of the past have, that unmet expectations are damaging (Lund et al. 2016; Massarella et al. 2018), and that building personal trust over a long period of time and integrating ideas of community members into project design is critical for long-term success. This outcome in the case of REDD+ aligns with a growing body of literature pointing to the elevation of performance – the acting out of a change – over substantive change in environmental strategies – a shift that has also been associated with a neoliberal turn in environmental tools (B. Büscher et al. 2012; McAfee 1999). These are cases in which performances of greening are not creating the products they are marketing to the world. Examples of such performativity come from wildlife conservation (B. Büscher et al. 2012; Igoe 2017), the Clean Development Mechanism of the Kyoto Protocol (Bracking 2015b; Cames et al. 2016; Bumpus and Liverman 2008; Haya 2009; 2010), and green economy assets more generally (MacKenzie 2009; Bracking 2015a).

More generally, though, the case calls into question the *value* generated by the complexity required in REDD+, and therefore the validity of the concept of additionality and of credit-based forest offsets (Raymond, n.d.). After all, if REDD+ is designed, in fact, to *prevent* rewards for past conservation actions – by requiring additionality to serve as the key source of value in these projects – what is the benefit of relying on REDD+ in this context? Could not the same result have been achieved, at a fraction of the cost, by the Colombian government requiring carbon-emitting companies to invest, perhaps with the support of an intermediary like Fondo Acción, in community-based forest conservation projects? According to one of BIOREDD+'s directors: "If everybody involved trying to put the project together and implement it had actually known how hard it was going to be, we probably wouldn't have done it." One of the BIOREDD+'s key technical contractors even lamented: "The problem with REDD+ is that way too much money goes to contractors." It is hard to argue that the credits that have been created through BIOREDD+ are *de facto* additional, given that nothing fundamentally changed on the ground as a result of the project. Yet millions of dollars were invested in these contractors to make them seem that they were. The Colombian Pacific's dynamism adds another layer of uncertainty and

risks to these projects, and therefore of the peculiarity of quantifying this risk to translate into credit amounts, buffer pools, and prices.

The fact that the principal drivers of deforestation globally are not local timber harvesting at the scale witnessed in Los Cocos and many other REDD+ projects (DeFries et al. 2010; Bos et al. 2018; Kissinger, Herold, and Veronique De Sy 2012; Weatherley-Singh and Gupta 2015) is another reason to question the common focus of these REDD+ projects, if reducing deforestation for the benefit of the climate is in fact the primary goal of the program. Addressing climate change and deforestation is obviously tightly intertwined with global economic relations: even if projects like BIOREDD+ were *actually* representing carbon emission reductions, they are unlikely to make much impact on global deforestation or climate change without more fundamental and universal change. If they are used as offsets, as in the case of BIOREDD+ (in which every VER purchased saves a coal company two USD, which they can then invest in further coal production), then they have no climate change value. Policy changes at jurisdictional (Boyd et al., n.d.) and national levels, as well as supply chain deforestation initiatives, may have some chance to touch those bigger drivers, but only if states and their financiers are willing to follow through on these policies and companies are willing to take them seriously and not simply move their operations elsewhere. To date, leaders in jurisdictions interested in REDD+ are facing the same challenges that the leaders of Los Cocos have – needing to prioritize outward accountability, while struggling to drive change on the ground.

Community leaders engaged in REDD+ have signed on to a long list of deforestation commitments and initiatives that have been associated with REDD+, such as the Amazon Vision, Governors' Climate and Forests Task Force, Rio Branco Declaration, Bonn Challenge, Under2 MOU, New York Declaration on Forests, Forests 20x20, FCPF, GCF, and UN-REDD+, that have them traveling around the world, far from the deforesting actions on the ground (Boyd et al., n.d.). Jurisdictional programs also face the same set of highly political, though ostensibly technical, questions around baselines, permanence, and benefit-sharing that again call into question the merit of the "additionality" concept (Angelsen, Hermansen, et al. 2018; Wong et al. 2016), making them as or more susceptible to perverse incentives in these projects. Much of the "readiness" funding is going to consultants outside of the government, as government entities lack the capacity to even manage REDD+'s complexity, and donors recognize that they may lose this capacity with the next election cycle (Lund et al. 2016). Partnerships between jurisdictions that do not rely on crediting may then be more effective than these efforts to perform additionality that are controlled by foreign experts – though bottom-up movements directed at locally accountable authorities will also clearly be critical for lasting change. In the world of voluntary carbon reduction commitments by businesses, meanwhile, investments in insetting, rather than offsetting, are likely to provide greater assurances around carbon reductions, though reductions in fossil fuel emissions within operations are more effective still.

9 Conclusion

This chapter illustrates how, despite the challenges that REDD+ faces to doing what it is theorized to do, it can generate carbon credits that people are willing to buy, built on the power of experts and incentives of those who have created this value chain and made the immeasurable, measurable (Gifford 2020; Bumpus 2011; Bumpus and Liverman 2008). Just as experts conjured up this idea of REDD+, so too have they invented the actions that make this concept appear to "succeed" even where it is changing little, in their "theatres of persuasion" (P. Graham 2005). BIOREDD+ has illustrated how these experts then enroll other experts and communities along

the carbon credit commodity supply chain to perform alongside them and reinforce their own performances. Rather than simply counting how many fewer trees are cut each year in a given context to show results, those laying the rules for REDD+ have developed very particular frames, technologies, publicity, and accounting practices – difficult if not impossible for lay people to scrutinize – to convince the public of the legitimacy of this otherwise highly contestable and slippery commodity (Callon 1998). By *performing* reductions in deforestation, then, these experts are able to *create* something they appear to be *describing* (MacKenzie 2009). This appearance of experts as simply describing, as opposed to creating, is as central to the success of carbon credit creation as the accounting techniques themselves.

The BIOREDD+ project shows just how this process operates in practice, demonstrating in particular how the commitment of experts to making REDD+ "work" through these performances may undermine the supposed primary aim of REDD+ of reducing deforestation. Indeed, the performances that have created the carbon market and the space for avoided deforestation to become part of that market, have in turn shaped realities and had material consequences in the remotest regions of the world – though these consequences are rarely, as we have seen, what the original designers of these concepts anticipated.

The case of Los Cocos's REDD+ project for the voluntary carbon market has shown how the dependence of REDD+ on experts -- necessary for combating the contestation of REDD+ at every turn – can undermine the purported goals of the project. The performance of technical rigor created complexity that contributed to reducing confidence among the people of Los Cocos in their local Governing Board – the entity that would need to garner widespread support to lead a push toward actually reducing selective timber harvests. The costs associated with this technical complexity resulted in the failure of alternative development projects to provide viable livelihoods—though community members spent many hours in meetings that they could have used in their crop fields. The community could not make a well-informed decision about REDD+ before deciding to accept it, or therefore fully "participate," simply because of the project's intricacy, ever-changing elements, and high future uncertainty. Nobody I spoke to in my five months in Los Cocos spread over a two year period could point to any particular change that BIOREDD+ had created in either livelihoods or the use of forests in the community. Yet the project has, on paper, generated over half a million carbon credits in its first five years – and these credits will be used to render a coal producer "carbon neutral." This suggests, then, that there is a fundamental clash between the acts required of actors along the REDD+ voluntary market commodity chain, performing a project's ability to reduce deforestation and forest degradation through a participatory, biodiversity-friendly process, and *actually* meeting these goals. In other words, the efforts of the actors along the REDD+ voluntary market commodity chain to make the REDD+'s fixes *perform* convincingly for the carbon market may be incompatible in practice with making REDD+ effective, efficient, and equitable (A. Angelsen, Brockhaus, and Center for International Forestry Research, 2009).

Not all of these are outcomes are owed to *performativity* alone. Nor are all of the performances that were required under BIOREDD+ specific to REDD+. As the project was funded by USAID, it owes some of its challenges to the demands of aid projects more generally (Li 2007b; Ferguson 1994). Some of the spectacle involved also appears in other forms of conservation projects (Igoe, Neves, and Brockington 2010; Lunstrum 2014). The practices used by community leaders in their interactions with funders or auditors are hardly unique to REDD+: training associated with field visits from evaluators, aid, or auditors for certifications will be recognized by all those who have seen the everyday practices of development and conservation

projects up close, while the phenomenon of local governance bodies prioritizing accountability to NGOs or central governments rather than their local community members has been well-documented elsewhere (Ribot 2003).

Yet the relations and institutions of REDD+ are unique, as it attempts to turn an invisible product, carbon sequestration, from regions of the world that are largely illegible to outsiders into a tangible product that can be bought and sold. These institutions "render technical" decisions that are profoundly political in the process. By excluding communities from these technoscientific aspects, then, they are also not allowing them to fully participate in the politics of these projects or the REDD+ program more broadly (Li 2007b). Analyzing the performativity of REDD+ along the full commodity chain of the voluntary carbon market as we have can help us make sense of the outcomes we have seen in REDD+ and caution us about its potential unintended consequences. This extends research around tradeoffs in REDD+ (Osborne 2015; Wunder 2001), and reinforces the finding in Chapter 6 that REDD+ projects' need to prioritize performance over substance leads to some key tools of the program *directly weakening* other tools. While others, such as Ece et al. (Ece, Murombedzi, and Ribot 2017), have shown the way REDD+ projects often circumvent local authorities, this study leads to perhaps an even more troubling conclusion: even in REDD+ projects in which communities are made to be the project proponents, and years are taken to include them, the performative demands of the project still serve to weaken local governance structures.

There is no single actor or institution to blame for how BIOREDD+ has played out. It is tempting to blame those who most enthusiastically advance carbon markets and the politically expedient climate change "solution" of tropical forest carbon offsetting, and the consultants benefitting and supporting the concept even as its limitations and production of expensive hot air have become more apparent. Many within the commodity chains of REDD+ today, as seen in this case, have been caught up in the web of institutions and acronyms spun out of it by these multiplying experts around the world. Those who developed these ideas surely did not intend to undermine local governance institutions – though some warned these true-believers about the mismatch between the concept and the realities on the ground in many tropical forest countries (Karsenty and Ongolo 2012; Larson and Ribot 2007; Corbera and Brown 2010). Many joined the "bandwagon" out of a desperate hope of addressing multiple global "crises" with one silver bullet (that is, REDD+) (McDermott, Levin, and Cashore 2011). Others had more nuanced expectations and have attempted to push REDD+ in the directions they feel may be most effective without entirely writing off the original (Angelsen, Martius, et al. 2018). The desire for the actors involved in a project like that of BIOREDD+ to affirm its success is also understandable, as these projects compete, in some sense, with discourses questioning the value of addressing climate change, environmental concerns more generally, or investing in anything beyond national borders.

Projects like Maï Ndombe REDD+ Project in the Democratic Republic of Congo, the CAZ REDD+ Project in Madagascar, the Kulera Landscape REDD+ and BIOREDD+ in Colombia, create millions of carbon credits, and are favored projects among both REDD+ promoters and offsetters as demonstrations of corporate social responsibility (Lovell and Liverman 2010). Yet thus far they appear to be generating no real carbon benefits (Seyller et al. 2016), and, as shown here and in Chapter 6, can weaken local governance structures. There are ample reasons, therefore, to remain skeptical about whether credit-based forest offsetting and the performances it entails is actually advancing global climate goals.

Chapter 8. Conclusion: The universalities and particularities of REDD+ in the Colombian Pacific

> Traditional production systems…have a built-in notion of sustainability, one that, however, has become impracticable in recent decades owing to a variety of pressures. Here lies one of the most difficult predicaments for conservation advocates and activists: pushed to rationalize ecological and environmental practices to ensure "conservation," they are aware that in doing so they are moving away from the long-standing, place-based notions and practices which ensured a reasonable level of sustainability until recent decades. Is it still possible to argue in favor of ecological difference so late in the game? Or are activists and conservationists forever doomed to bring nature into the realm of modern planning to ensure conservation? And if so, how can this be done without reinforcing coloniality (that is, the subalternization or even elimination of local grammars and knowledge of the environment) at both cultural and ecological levels? (Escobar 2008, 9)

> We have to create conditions so that we are not dependent on the rest of the country, and this requires most of all, building from "the institutional." Development in the territories has to align with our cultural values. - PCN President speaking at an Assembly of the Community Council, Los Cocos, 2017.

> From the time we were in high school we have been talking about this theme of conservation "from the territory" with our friends, and we realized that Colombia is a country with little conservation because we know there are these big businesses that are producing a huge negative environmental impact. So we called out this incoherence because the institutions come here and tell us, "you have to conserve," while there outside they are doing whatever they want for themselves - Young leader on La Hormiga's Ethnoterritorial Organization Board in a 2017 interview.

1 Intro

I entered this research with the intent of analyzing several common questions debated today in tropical forest conservation through the lens of the experience of the people of Los Cocos and La Hormiga, and the story of the larger BIOREDD+ program and broader context of REDD+ in Colombia. The set of key questions I was asking expanded over my time living in these communities and speaking with many of their residents. In the end, my search for answers revolved primarily around the following questions:

1) What are the effects on *participant communities* of being brought into markets for ecosystem services via REDD+?
2) What are the effects on *forests* of being brought into markets for ecosystem services via REDD+?
3) How does community land titling shape forest use and what helps communities to control this titled land against outside threats?
4) What are the lessons learned from BIOREDD+ that might carry over into other REDD+ efforts, projects and otherwise, of the future?
5) In what ways can REDD+ projects shed light on the possibilities of the "improvement of improvement" and the making and unmaking of sustainable development subjects?

My effort to answer these questions in this dissertation began, in Chapter 2, with a review of the multiheaded chameleon of REDD+, its evolution over time, and the critiques and motivations that have driven this evolution. In addition, I situated REDD+ in debates about neoliberal conservation and describe the directions it might take in the future.

In Chapter 3, I brought the reader into the history and present of Afrodescendant communities of the Pacific. I detailed the ways that conservation and development subjects were created in the region, in part as a response to the adaptation of communities in the region to what is brought from the outside maintain their autonomy. I also introduced La Hormiga and Los Cocos, the communities in which the bulk of my research for this work took place, here.

In Chapter 4, I introduced the BIOREDD+ project to the reader, explaining the history of the USAID-funded effort to bring one million hectares of land in the Colombian Pacific region under REDD+ forest conservation efforts, and what the project was comprised of, largely from the perspective of the development practitioners "executing" the project.

In Chapter 5, I detailed the livelihood impacts of the BIOREDD+ project. The chapter drew on both interviews and household survey data from the two neighboring communities to show that few livelihoods had been altered by the projects. While there remained some anticipation about the possibility for investments that might be made from the proceeds of carbon credit sales, these proceeds had not yet arrived in the community by the time this dissertation was drafted, a decade after the project began.

I then focused on the governance implications of the BIOREDD+ project in Chapter 6, teasing out multiple layers of governance and the interactions of these layers with conservation and development projects over time, and BIOREDD+ in particular. I drew out the lessons that the context of the communities of the Colombian Pacific and their forays into REDD+ have for a global debate about what works in conservation. While some of this literature points to the importance of community relationships with outside organizations for strengthening community governance over communally-titled land, the chapter described the nuance of impacts based on the interventions and ambitions of these outside organizations and relationships with those in the territories. Moreover, the chapter shows that payment for ecosystem services projects like REDD+, particularly as they become more technically and technologically complex, can serve to undercut, rather than strengthen, local community governance efforts, and even open space for increased deforestation as a result.

Finally, I laid out the climate change implications of BIOREDD+ in Chapter 7. As REDD+ is marketed primarily as a tool for mitigating climate change, I sought to understand how well the project had accomplished this goal now a decade into its life. I found that despite the lack of change on the ground or even modest efforts to alter the trajectory of timber harvests, the project had generated hundreds of thousands of carbon credits that are now being used by companies to offset the emissions from liquid fuels used across Colombia.

In this concluding chapter, I summarize the principal conclusions I have reached throughout these chapters in exploring these questions throughout these chapters, and the ways these findings contribute to theoretical and empirical debates on these issues.

2 Effects on participant communities

As detailed in Chapter 2, there have been well-justified concerns from REDD+ observers since the program's initial conception about the impacts that REDD+ projects might have on forest communities, including driving dispossession and restricting key local livelihoods (Chhatre et al. 2012; Larson 2011; Lord 2018; Schapiro 2009). REDD+ must also respond to the same critiques of other neoliberal conservation models for their impacts on participants, including bringing people into volatile global markets and crowding out other relations with the lands around them and one another (Chervier, Le Velly, and Ezzine-de-Blas 2017; Cardenas, Stranlund, and Willis

2000a; Rode, Gómez-Baggethun, and Krause 2015; Neuteleers and Engelen 2015; Holmes and Cavanagh 2016).

Part of my research was aimed at assessing whether these concerns were playing out on the ground, and what other impacts, including benefits, REDD+ participants were realizing from the program. Would the promise of funding for conservation overtake other reasons for conservation, akin to the way that Escobar hypothesizes in his quote above? REDD+ projects, in their calculation of every molecule of carbon stored and carbon dioxide released, are a particularly extreme version of the modern planning realm Escobar speaks to. Would BIOREDD+ contribute to land grabbing, or forced changes in the way community members use and relate to their forest, as the leaders of La Hormiga worried might occur when they rejected the project? Would the project strain community relations? What benefits would alternative livelihood projects and carbon credit sales funding bring?

By the time my field research concluded in 2017, five years after the project kicked off, there were few footprints of the project in Los Cocos that community members were likely to recognize, for better or worse. Few knew what the project was intended to do, and there were no efforts to force anyone in the community to change behaviors. For many on the ground, BIOREDD+ took the form of a continuation of the forest conservation discourses and disappointing alternative development projects of past projects. As in past projects, BIOREDD+ brought some benefits to a dozen community members over the life of the project who were hired by the project for odd jobs and short contracts – captaining a boat for technicians, conducting community surveys, leading workshops for woodcutters, or serving as President of the fishing association that existed "on paper only." Yet, as we have seen, unbeknownst to most members of the community, there was much happening among the BIOREDD+ team and the community leaders designed to generate credits for the community eventually. Though this was meant to be for the benefit of the community, the absence of community leaders from their River, in part to meet the needs of the project, degraded trust in the Community Council governance process. While the form that REDD+ took in Los Cocos did not differ much for those on the ground from those other conservation and development efforts of the past, then, its complexity demanded more from leaders to understand and manage it. This complexity derived from the translation of standing trees into carbon credits, and the necessity of showing that the changes in forest cover in the community are "additional" to what would have occurred without the project.

The only reason additionality is required, of course, is because under the rules of neoliberalism, only markets with clear price signals and verifiable products could drive investments in reducing deforestation. After all, companies need to show what they are "getting" for their investments, even if the value they gain is primarily a slightly greener shade of greenwashing. While this is a self-serving narrative, it is also a reflection of the turn across many sectors to incorporate business management principles into their structures. "You can't manage what you can't measure," has become a sacred trope in both conservation and business management worlds (see, for example, the Conservation Measures Partnership). But the findings of this dissertation beg the question: what if in attempting to make something measurable – in this case, avoided deforestation – we diminish or threaten the very value we hope to enhance, by, for example, undermining the governance systems that would maintain this resource over time? What is lost and harmed in forcing these communities and their relationships to their forests into these frames of financial transactions?

If in its complexity and costs, REDD+ challenges the autonomy and control of a local governing body, then it can be a Trojan horse for more problematic, or poorly understood entrants to these communities in the future. We have seen in Los Cocos that the arrival of REDD+ coincided with the collapse in faith in the Community Council process. It is difficult to be sure how much of this loss of faith was due specifically to BIOREDD+ and what to other, sometimes intertwined, factors. There was certainly a commonly voiced sentiment in our interviews and surveys that the Governing Board leaders were not fulfilling their role of protectors of the territory because they were not around. At the same time, leaders told us that the BIOREDD+ project required significant time investments and trainings outside of the river. The fact that a second excavator entered the community to mine gold during the project periods, without consulting with the Governing Board or other community members, is one version of this Trojan horse.

There remains an open question of how Los Cocos and the other communities in the BIOREDD+ program might benefit from the sale of carbon credits. COVID and a revived presence of armed actors in the communities have deterred other outside organizations from traveling to these communities. Leaders have been in talks with the NGO managing the funds about how they would use them. Following the use of these funds would therefore be a useful next project and one important for understanding the whole scope of REDD+'s influence on communities. The fact that this funding will not begin to arrive until about a decade after USAID first approached these communities about this project, and that community leadership has turned over three times since then, is a telling indication of the challenges of making such funding an effective incentive for reducing deforestation.

3 Effects on forests

While the BIOREDD+ projects have generated millions of carbon credits and attracted interest from buyers for their supposed focus on biodiversity and community well-being, few on the ground understand how these carbon credits were generated. Only those who have been able to wrap their heads around the comparative reference area concept – a handful of people in Los Cocos it seemed, based on my interviews – understand how it is that they might be paid for not changing anything. This finding of credits being generated despite a lack of change on the ground aligns with those of other researchers who have spent time on the ground and studying project plans, assessing how REDD+ projects are constructed, such as Seyller et al. (2016). Just as this dissertation was being finalized, a similar critique came out from Carbon Market Watch on REDD+ projects in the Colombian Amazon (Dufrasne 2021). The author found that credits purchased by companies operating under the country's carbon tax loophole to become "net zero" and avoid paying the carbon tax were also generated as a result of manipulation of the baseline.

Some leaders in Los Cocos think that the next verification will generate more credits because community members have been unable to cut wood over the last two years in the portion of the forest that has become a warzone between different armed actors. This is the inverse of the situation lived in the east of Colombia in the preceding years, as deforestation spiked after the peace deal between the Colombian government and the FARC enabled people to enter the forests the FARC had previously controlled to cut trees and put cattle on the land. It is not an ideal place for these projects to be, on paper supporting the well-being of local people, while in practice they generate credits as a result of the confinement, displacement, and terror of community members thrust into another armed conflict.

There are many who have devoted years to ensuring that carbon credits generated by these projects, and consent to REDD+ from communities, are "real." These are noble efforts in the face of a program that could do serious harm to forest communities and a climate changing faster than even many climate scientists had predicted. Yet the example of BIOREDD+ shows the diminishing returns to technocratic tweaks to make a program more "rigorous" in its verification, or lower risk for harming local communities. Even under the most complex and comprehensive project methodologies, supposedly best-matched to the context, credits can be created that have dubious significance. More fundamental than the doubts of any observer about the validity of these credits for a given project is that there is not, and cannot be, a way to guarantee additionality given the illusion of definitive baselines in a dynamic world. All credits are therefore cast into doubt, created only through the trust buyers put in "experts" who, while benefitting directly from the creation of these credits, assure buyers that their construction of baselines is legitimate. In this context, spending ever more on verification standards that take away from what communities receive in the end, with little better assurance of the "legitimacy" of these credits, starts to look like a fool's errand.

Again, there is an outstanding question to be explored over the coming years of whether the funding that the communities receive from credit sale will go toward reducing deforestation in some form, either by substituting in as income for would-be woodcutters, or supporting the community's efforts to keep outsiders from cutting their mangroves. The funding could also support the purchase of technologies that would increase deforestation internally. If the manner in which it is distributed builds confidence and local legitimacy of the Community Council and Governing Board in particular, then there might be more hope for future efforts to develop strong institutions for managing forest lands across the watershed collectively. If it instead continues to weaken this governance structure, then there will be less opportunity for coming together to stop outsiders from taking their resources or having trusting dialogue to bring people along to this end.

One important consideration to keep in mind in this process that came out of our interviews is that forest conservation rules do not have to look like what the local environmental authority or forest management technicians think they look like from their academic training. In fact, these may be too complicated, foreign, or lose people along the way. The traditional rules that people in both Los Cocos and La Hormiga described to me of cutting on certain moon cycles, using only an axe to fell trees, taking trees only of a certain size, and taking weekends and holidays off from cutting, align with the other traditions of the community and are simpler to follow. Some communities, including in La Hormiga, have also found success in setting up forest "reserves" around key sources of water for the communities, recognizing the impact healthy forests have on effectively cleaning and preventing soil erosion into their source of water. Institutions like these are not simply continued as a result of people being of a particular ethnicity, of course, or living in a place where they used to be followed, but must be passed down and adapted through words, practice, trial and error, and trust in the rules and one another to follow them.

4 Community land titling and forest use and institutions

The importance of providing title to communities, particularly Indigenous communities, as an important, if imperfect, lever for protecting forests remains a point of emphasis in forest conservation circles, and is sometimes framed as a prerequisite to a just REDD+ (Evans 2019; Williams 2013; Larson et al. 2013). As Larson notes "There is no guarantee that local people will conserve forests if they have more, or more secure, rights, though the central tenet, that secure

rights permit longer-term horizons and greater interest in sustainability, appears to hold true" (Larson 2011, 542). Research has also shown that land titling like that undertaken in the Pacific may also not be enough to ensure communities have both a sense of tenure security and actual tenure security, and that communities may need support from outsiders, such as to enforce the borders of communal forests (Barry, Larson, and Pierce Colfer 2010, 28). The question of "what works" as accompaniment to titling or other forms of tenure reform to make this tenure security effective for sustainable forest management has therefore been the next frontier of this conversation.

This framing of why land titles should be granted is problematic – why should communities not be granted title over their lands because they have lived there and worked them for generations and have a right to land, rather than because Western conservation organizations say it is good for the forest and for mitigating climate change? Nonetheless, the framing is so common in this field that it is important to speak to my findings in this respect. It is also important to do so because my findings ground this framing and are a reminder of the importance of local contexts to understand why a community with title in one place might have great success in keeping outsiders out and managing their forests, while their neighbors struggle.

What we have found in exploring this question in this thesis, then, is nuance. What "works" in one place may not work in another, because the individuals involved and their relationships, the historical context, specific threats to the local forests, and details of any given projects or "interventions" alongside titling all shape how a community manages its resources. I consider here findings on two key hypotheses that others have made about what "works," namely, the role of external actors in supporting communities to manage their lands (Blackman and Veit 2018), and the role of involvement in payment for ecosystem services projects (Busch and Ferretti-Gallon 2017). We also consider here one factor that is less discussed in the literature, but we found in our own research: the role that linking ethnic identity with particular forest management practices, sometimes part of titling laws, have on community relationships with the forest. We found that these factors also interact in ways not discussed in that literature.

In comparing the cases of Los Cocos and La Hormiga, we found that the influence of outsiders that comes with community titling, and in particular the actors that seek to help communities navigate the bureaucracy of titling and meet requirements for titling like developing territorial management plans, can have mixed effects. While these individuals and organizations may be key to enabling titling by leaping legal hurdles, they can also corrupt nascent community governance processes, taking decisions about how to lead and community priorities out of the hands of local leaders. Similarly, development and conservation NGOs and donors attempting to support communities can distract leaders from more core functions and force them to invest energies in being outwardly, rather than downwardly, accountable, as Ece et al. found (2017). In the case of Los Cocos, this prioritization of project management above other key roles for the Community Council Governing Board has been an important driver of a declining faith in this governing process, and adherence to its institutions. It is in large part the money, or promise of money, that is behind these distorted priorities and the breakdown in trust that can enfeeble a governance process from the start. Moreover, the ongoing armed conflict in the Los Cocos territory today suggests that the community's relationships with outside actors as part of REDD+ has, unfortunately, afforded them little protection from these other forces. These outcomes contrast with the hypothesis of Blackman and Veit (2018) that one of the drivers of conservation success resulting from community titling is contact with outside organizations and associated funding opportunities.

Similar findings also came from my assessment of the outcomes of enrollment of communities in payment for ecosystem services projects specifically, like REDD+. Having outsiders come and dictate priorities and goals for how to manage the territory where new governance boards are getting their feet under them and trying to develop legitimacy among a population may not be the most effective means of supporting that process of legitimization. Throwing promises of funding that are quite uncertain into this mix is also a recipe for discord and disappointment. That is not to say that funding or external support cannot be helpful for certain activities, but it must be requested and used on the terms of the community as part of the process of legitimization. As noted throughout this work, the challenge for communities of wrapping their heads around REDD+ in particular, and the steeplechase of requirements demanding PhDs in making REDD+ happen, can pose unique challenges for community governance efforts. This diverges, then, from the findings of Busch and Ferretti-Gallon (2017) who argue that communities with community land titles that also participate in payment for ecosystem services (PES) programs are more likely to have better conservation outcomes than titled communities that do not participate in PES programs. It aligns, however, with the view of Larson early in REDD+ implementation, who worried about the failure of these programs where externally imposed rules would something missing here (Larson 2011, 547).

Perhaps above all, then, we have learned that as long as those in a community are indeed given a choice about what comes into their territory, the people leading the community and their clarity of vision and honesty about what a program like REDD+, or any other activity or people that enters their territory, can and cannot do is the most important part of how a project lands and what its effects are. Perhaps the best example of this comes from contrasting BIOREDD+ communities with a community that did not participate in BIOREDD+. I have had the privilege of spending time on a number of occasions with Everildys Córdoba, a leader of COCOMASUR, the Community Council that developed the first REDD+ project in Colombia to receive carbon credits, and a model, in some sense, for the BIOREDD+ projects that followed. Fondo Acción hired Everildys to work with all of the communities within the BIOREDD+ project to teach them about her community's experience with REDD+.

Everildys understands and navigates with ease the minutiae of REDD+ projects and carbon markets. The qualities that make her so effective in her role as spokesperson for the COCOMASUR experience, however, are her clarity of thought, her honesty, and a magnetic personality that attracts people to her and makes them lean in to listen to her every lyrical and weighted word. The positive energy that radiates off her and her quick wit put people at ease. She has thought long and hard about REDD+, about conservation, and about where Afrodescendant communities and their leaders fit in to all of this.

In these sessions with other community leaders, Everildys is inevitably asked whether REDD+ was good for her community. Though her community's project is touted by REDD+ intermediaries as a successful case study (c.f. VCS 2018), she always has the same balanced response: "Our community governance was strengthened while we were going through the REDD+ process, but it wasn't REDD+ *per se* that did it. It could have been any effort that brought us together, anything that encouraged us to rally around and defend our territory and build trust in one another." REDD+ had actually put COCOMASUR into debt because it was the community who developed the project and paid for it, and the project's costs were high and return on carbon credits low. It had also been stressful for the community, and Everildys personally in particular, because recouping costs required constant marketing to potential carbon credit buyers. Yet the investments required by REDD+ also forced community members to

define what they wanted for their territory and develop the governance tools to follow through on their vision. Putting themselves out there had generated additional benefits for the community, keeping them and their struggle against powerful paramilitary land invaders who had already stolen land in the past in the press, and attracting tourists and journalists to come and learn their story.

Everildys' response, what she had understood long before my first trip to visit her in COCOMASUR or before I had the opportunity to accompany Los Cocos or La Hormiga, may be the core lesson from this dissertation. As the technocrats pick at the methodologies and validation tick boxes for REDD+ and try to build in safeguards through formulas for consent, Everildys and her many co-leaders in COCOMASUR, the ever-growing slate of leaders in La Hormiga, and the young leaders in Los Cocos trying to revive a focus on community engagement and investment among high schoolers know the centrality of controlling their territory and making it work for future generations. It is not easy to hold on to that compass in the storms around them, and amidst the constant enticement of those who want to control their territories, or marketers on Facebook and YouTube who promise happiness and power in material possessions and urban living.

Yet with each commitment to having an inclusive, community-wide process that demonstrates a willingness to stand up to both internal and external actors threatening community territorial control, the strength of the grip of communities around this compass grows. One leader from La Hormiga put it this way:

Look, here in La Hormiga, not just anyone can come in like the owner of their house or put together a project and come and implement it. Everything is always agreed with the Community Council because here it is respected. Today the respect and the autonomy that the Community Council allows it to say yes or no. For example, what happened with BIOREDD+. We have some things clear, so we said: "Ok, is so much money really so great? Under what conditions are we going to accept it?" We have today some dynamics, some ways of thinking about the territory and we don't want someone to come here to force conditions on us, for them to tell us, "No, we'll give you this so that you'll do that." So the people said no. That position and that clarity that we have give us more respect every day…and the most important is to know where we want to go. La Hormiga knows where it wants to go, and that is why we are respected.

For La Hormiga, then, the decision to reject BIOREDD+ was not just about rejecting something that they worried might not align with their values, but about the narrative generated by that decision. Being able to tell the story about that rejection of potential for funds from outsiders was not only a chance to remind the community internally of their values, but to demonstrate commitment to those values and the strength of the community organization to both community members and external actors.

If REDD+ is governed like that in COCOMASUR, where the community has proactively maintained power over what REDD+ is for them and what they want to get out of it, then it can be, at best, a focal point around which to build discussions and work toward territorial control. The COCOMASUR project was distinct from that of BIOREDD+, however, as it was developed by the community, in conversation with an anthropologist interested in helping them find ways to fund their territorial control efforts.

The inclusivity of leaders, their focus on maintaining community control over their territory, and their ability to do so against the will of many from outside their borders, are therefore the most defining and enduring forces in forest management in these community-held territories. Technocratic changes in REDD+ can make it easier or harder for these leaders to access

resources through REDD+ to support their community-strengthening processes, and easier or harder for them to be diverted by the details of REDD+ from these core governance concerns. Community leaders, and ideally all members of a given community, must know what they are committing themselves to, so they must fully understand what REDD+ entails before signing up, and be engaged in each decision that will have implications for their territories along the way.

These questions remind us of the obvious fact that that every community is different. Even amidst the communities that looked so similar on paper from Bogotá and Washington, with their communal land titles, Community Council governance structures, and similar livelihood practices, the institutional context can vary as dramatically as the individuals who have led these communities and the many influences on them. Given the diversity in viewpoints and desires that those in these different communities have, projects like REDD+ must not only be willing to adjust the wording of a prebaked project to be understood by the community but must leave open ample space for the contours of the cooperation to be defined by the participants in the first place. They cannot enter in the most common mode of development that these communities have experienced over the last several decades, described by one PCN leader in an interview the following way: “They design things for the Blacks and just put them there. A large part of the backwardness of our communities in development is due to this, their imposition of a model of development that isn’t pertinent for us.”

A long history of development practice, including the BIOREDD+ project, shows that aid is rarely so patient. Private investors in REDD+ looking to make a return are often even less so. This process, however, if done with respect and ample time, can support the supposed goals of the REDD+ to strengthen governance by reinforcing the value of these internal processes. The local governing body plays a role in such a context not as a stamp of approval on a project, but as co-architects of all that enters the community. Offering the opportunity for rejection, and space for the community to make that decision, can do far more for the organizational process than a day of “Territorial Appropriation” workshops. These communities must be given the space to decide what aspects of these practices brought in from the outside they want to adopt, and what they want to resist.

Julio, the Legal Representative from La Hormiga, once told me, “This is how development is measured: in the peace of mind of knowing that we can continue existing. That’s it! The money isn’t an end in and of itself. It allows us to continue living and to have autonomy, and we will accept it. But it cannot replace our dignity or our principles.” If these projects are able to bring funding into communities like La Hormiga for them to use in the ways they see fit to support their institution-building processes and to “continue living and have autonomy,” then they help sustain common pool resource management regimes. The experiences of the BIOREDD+ communities and COCOMASUR suggests however, that given its complexity, lack of guarantees for communities in the context of volatile carbon markets, and high costs of expert investment, REDD+ projects as they have been realized over the last decade may not be the ideal option for these communities. As one person working for the Principal Contractor, based in Bogotá suggested, “Without USAID support, a community could never do REDD on their own,” adding, “The voluntary market is not what one would believe it is: it doesn't recognize the work of the communities accurately."

Unfortunately, across this region, the ongoing violence has left many of these communities with few better options from which to choose to continue to bring in some funding to maintain their autonomy. They are told by armed actors that they do not have autonomy, save for joining them or planting coca. Nor are they given a choice when they try to sell their produce in the city.

Even when they are able to support a candidate for local elected office who they believe represents them and will support their quest for autonomy, it is nearly impossible for the official to provide meaningful resources to this effort under the thumb of these groups. In 2017, the leaders of La Hormiga began a GoFundMe campaign to raise funding for its efforts to develop their own community agriculture projects. This campaign has literally and figuratively borne fruit, as the few thousand dollars raised were invested in beginning to cultivate another local crop, *lulo*, for sale in local supermarkets. Yet not all communities have access to the network of individual supporters that La Hormiga does.

There has been increasing interest in the world of development aid in giving unconditional cash transfers – that is, letting people decide for themselves what is most valuable to them and worthy of investment (J-PAL 2020)(J-PAL 2020). In addition to the positive outcomes in overall well-being that studies of these programs have found for recipients and their communities, taking out the strings attached reduces implementation and monitoring costs and ensures much more of a given donation flows to the recipient. Are unconditional cash payment programs like these viable for directing funds to these Community Councils, or for other community-wide efforts to live at peace and maintain autonomy? We have seen that there are times when money itself can divide a community, but where there is transparency around resources and the opportunity for the community to prioritize the use of these resources together, through participatory budgeting and allocations, this can in contrast help strengthen community institutions.

Many of the communities in the Pacific, including Los Cocos, have not been as effective as La Hormiga in establishing a guiding narrative about sustainable use of natural resources and making collective decisions adhering to this narrative. This reality again raises the questions in Escobar's quote at the start of this chapter: "Is it still possible to argue in favor of ecological difference so late in the game? Or are activists and conservationists forever doomed to bring nature into the realm of modern planning to ensure conservation? And if so, how can this be done without reinforcing coloniality (that is, the subalternization or even elimination of local grammars and knowledge of the environment) at both cultural and ecological levels?" (Escobar 2008, 9). As we have seen, doubters of the existence, or at least the conservation effectiveness, of Black ethnic difference grounded in ingrained notions of sustainability, built modern planning requirements into the rules for Afrodescendant community titling in the Pacific, by requiring that these communities develop territorial management plans. In the eyes of the state environmental authorities and NGO conservation organizations, most of these communities long ago "fell" from their imaginary Edenic sustainable existence. These organizations have been pushing for some combination of Western-derived conservation tools to be used in these communities – command and control regulations, Western forest management practices, and alternative livelihoods development via projects.

A young leader we interviewed in Los Cocos argued that the notion that there was at one time an Edenic existence tied in some way to Blacks' essential character, however helpful it may have been for making the case for community titles to Colombia's Constituent Assembly in 1991, has been detrimental today to ongoing efforts to build effective institutions in the communities of the Pacific. In his opinion, a crisis of confidence results among those told by some that they are inherently predisposed to conserve, and by others that they are failing to conserve adequately and need to therefore create Forest Management Plans or invest in REDD+ projects. Why could these organizations not instead, he suggested, be honest about the history of these communities and their forest and resource use, and lay out the importance of recuperating,

continuing, or developing, more sustainable, less profit-maximizing, practices precisely in order to maintain their autonomy?

In this view, long-term sustainability of the resources in their territories for their own use could be presented as a goal to guide their decision in a dynamic world, rather than a static essential quality they simply needed to rediscover. These efforts could include community work, as has been done in COCOMASUR and La Hormiga, to recover some of "the local grammars and knowledge of the environment" (Escobar 2008, 9). This could also afford a greater sense of autonomy and power to each community in their decision process, rather than feeling squeezed by these dissatisfying narratives.

In sum, this work suggests that that assumptions about what will "work" in what contexts to support titling from econometric models must be challenged, that strong and inclusive local governance is the best hope for the ongoing control of these territories by these communities and the opportunity that offers for managing them against outside extractivist threats, and that outsiders and their obligations and funding can threaten that governance if they are not asked in and their place and roles are not fully understood and controlled by more than a few leaders. Moreover, nothing is static in these contexts, including peoples' relationship with their environs and one another, and processes that assert otherwise are set up to fail. Finally, while activities of outside organizations may be aimed at assisting communities to develop management plans to enable longevity on the land, activities that weaken governance confidence and peoples' relationships to one another in the process will have perverse consequences for conservation, encouraging emigration from the territories and leaving forests more vulnerable to drivers of larger scale deforestation, as Robson has shown (Robson 2009; Robson and Nayak 2010).

5 Lessons from Colombia's Pacific for the future of REDD+

Continuing its general trajectory of the last fifteen years, REDD+ continues to take new forms and mean different things to different people. Despite having been declared dead by some several years ago, it appears to be increasingly popular among companies committing to Net Zero emissions goals.

The newest REDD+ addition is the coalition of companies and countries known as LEAF: Lowering Emissions by Accelerating Forest Finance, announced at the Leaders' Summit on Climate on Earth Day, 2021. LEAF is an attempt to increase finance ambitions from countries and companies for jurisdictional REDD+. The coalition uses a standard (TREES – The REDD+ Environmental Excellence Standard) created under a jurisdictional REDD+ validation and verification program known as ART (Architecture for REDD+ Transactions) (Architecture for REDD+ Transactions Secretariat 2021). The effort, led by many of the same folks who have been supporting other jurisdictional REDD+ efforts over the years, such as California's Tropical Forest Standard, attempts to address some of the major criticisms leveled at REDD+ in the past. In particular, it suggests that offsets must only be "above and beyond" companies' internal carbon reduction ambitions, and it attempts to address larger drivers of deforestation and avoid leakage by providing funding only to jurisdictions of a particular size. Yet even as some REDD+ proponents are pushing hard to center jurisdictional REDD+ as the REDD+ of the future, it appears that project REDD+ like the BIOREDD+ projects is not going away either. In January 2021, a report by the Taskforce on Scaling Voluntary Carbon Markets argued for continuation of both jurisdictional and project-based REDD+ (Taskforce on Scaling Voluntary Carbon Markets 2021).

Many of the lessons learned in this dissertation will likely therefore continue to apply in the project REDD+ context. While the jurisdictional form of this REDD+ effort is distinct in several key ways from that of the project-based REDD+ assessed in this dissertation, and a full analysis of the possibilities and pitfalls of the LEAF coalition in particular is beyond the scope of this dissertation, this research also led me to several conclusions that might apply as lessons for both future project and jurisdictional efforts.

The first of these lessons is that those who have successfully conserved in the past should not be sidelined in the benefits from efforts like LEAF. The program promises to only provide credits for additionality but finding ways to funnel funding in a transparent way to communities within these jurisdictions that have a history of conserving and are looking for additional resources to continue conserving will be critical for the success of the effort. Unfortunately, the governors of these jurisdictions are not always the most supportive of these communities, sometimes perceiving themselves or their personal economic interests to be in competition with these titled communities, as has been the case in Colombia's Pacific.

Second, command and control regulations and territorial management planning requirements may be less effective than participatory community titling, followed by leaving space and resources to these communities to work out their own institutions for territorial management. Moreover, these regulations and requirements can sometimes backfire, either by distracting from other institutional strengthening processes, or providing an "offramp" to communities and jurisdictions from actually dealing with the day-to-day decisions that shape management of a territory, under the illusion of having solved the issues by the often arduous act of developing a plan.

Third, the primary drivers of deforestation must be the focus of these jurisdictional efforts, and "interventions" must be tailored to these drivers. With some of the biggest drivers of deforestation, particularly in Latin America and Southeast Asia, from the supply chains of products commonly used by some of the companies' coalition members– Unilever and Nestlé, for example – and many of the more wealthy and politically powerful people in these jurisdictions also having made their income from these same deforesting industries, it may be difficult for the coalition to center these drivers in their work.

Finally, the jurisdictional governments, just like the Community Councils, will need time and space to carry out the democratic processes necessary to take action. There are yet more pitfalls in these processes at the jurisdictional level than even those at a local scale, but having these policies dictated from foreign countries and companies would be far less democratic and more harmful than giving leeway and prerogative to elected jurisdictional leaders.

Indeed, if there is one fundamental takeaway from this research, it is that representative, inclusive, deliberative governance is, at the end of the day, as critical to the future of forests as any refinements to a standard like TREES – nothing else is possible, including reducing deforestation, without this governance and accompanying control of a territory by those who live there and aspire to continue living there. This process cannot be neglected with the assumption that money, plans, or projects can substitute in for it. Nor can it be driven from the outside, though mutual sharing of experiences and learning about what organizing tactics have worked elsewhere can help. As Julio put it after his election as Legal Representative in La Hormiga, "Our work plan for three years is to work on strengthening community organization, strengthening our food production autonomy, and strengthening our representation in electoral politics." In other words, his entire mandate was to strengthen community governance through

three different paths, including by reducing dependence on outside actors and income sources for food production. He saw this these as means to conservation ends.

In addition, while communities may happily accept help for their ongoing governance efforts and may appreciate being valued as part of the solution to this global crisis of climate change, not all will be comfortable with being used to offset the pollution of the companies they see as contributing most to the climate change that they are living with on a daily basis. In the Pacific, climate change was mostly recognized by people as that "crazy weather," which had upturned the seasons of the past, and led to the destruction of several harvests of staple crops.

Finally, the case of BIOREDD+ in the Colombian Pacific, as an example of the REDD+ endeavor overall, is a potent reminder of the limits to financialization. Markets are not effective or efficient means of promoting all goods that have value to society. There are any number of ways that society can take into account environmental "externalities," but putting a price on them and selling them in markets may not always be the best means of addressing the problem. The popularity of this technique in promoting sustainability today, in part due to the growing power of the financial sector in all aspects of our lives, and in part to its diversion of mitigation efforts away from strong regulation, must be reconsidered in light of several limitations I have highlighted in this dissertation. First, marketization leads to excessive transaction costs and, therefore, limited funding being dedicated toward the good being valued. In addition, it depends entirely on experts who both set and profit from the rules. Several of these markets have been shown to generate marginal benefits at best and can crowd out or actively damage other more effective ways of supporting the same ends. Finally, these market tools prioritize support for those who have polluted most, and struggle to value, and thus incorporate, some of the greatest supporters of ecological and planetary health. As this dissertation has shown, getting benefits to those who have been committed stewards requires still greater investments in middlemen experts to make the accounting favor these stewards.

Given that we have seen in this dissertation that what REDD+ looks like on the ground depends heavily not only on who is designing it and what tools they use, but the very particular local context of its implementation. The lessons learned from the experiences of BIOREDD+ cannot be assumed to apply globally. Yet, as this conclusion reinforces, the contrasting experiences of communities with REDD+ explored in this dissertation also reveals that, even in REDD+'s diversity, there are nonetheless limitations on effectiveness, efficiency, and equity emerging from the core purpose, form, and requirements of REDD+.

6. REDD+, the improvement of improvement and the making and unmaking of sustainable development subjects

What does this example of REDD+ in Colombia's Pacific region reveal about the intersection of development, conservation, and globalization, and the making of development and conservation subjects at this intersection? In particular, how does the case fit in with the work of others who have explored these matrices through both ethnographic and theoretical lenses, including Tania Li (Li 2007) and Arturo Escobar (Escobar 2008)?

First, we see that though USAID had hoped that BIOREDD+ could be a lifeline for communities struggling under the weight of globalization failing them, the projects seem to be just a slightly different form of conservation and development that ultimately is beholden to the same forces and their demands as earlier such efforts, in addition to new ones given the demands of the carbon market. Ferguson describes in his study of development practice in Lesotho the "intelligible field" created by development discourses and practitioners, ripe for intervention

(Ferguson 1994). REDD+ expands this field by bringing all of the world's global forests into a sphere of intervention, rendering them "technical," in the words of Tania Murray Li – bodies of carbon to be counted and conserved, and people to be trained to do the conserving in exchange for funding (Li 2007). There are new technical skills required to play in this field, as remote sensing analytics, modeling, and finance are prized. These skills have been imported into global conservation efforts from their early uses in the creation of "political forests," helping to enclose all the forests of the world as political forests in which the actions of their residents can be monitored and improved (Peluso and Vandergeest 2020). Global North-South power dynamics in the projects and the framing of those living in and around forests as "improvable," in this case through financial incentives, therefore remain largely consistent between the development and conservation efforts of the past and REDD+ projects today.

The USAID team explained in interviews that they had conceptualized and funded the execution of the BIOREDD+ program to help people of the Pacific region access new markets that were not beholden to the same failing markets that they had tried to help people of the Pacific enter in the past. They were focused particularly on the failure to generate demand for sustainable timber markets after USAID and communities of Colombia's Pacific region invested years in creating the supply for them. Yet the communities were also struggling to access markets that they had been able to in the past, thanks to the presence and control of armed actors that demanded tributes at every turn from anyone who wanted to move or sell their goods to others. These armed actors were mostly maintained not by these tributes, however, but by the cocaine trade. The attempts by the US Drug Enforcement Agency to quash this trade were precisely what gave these groups power and created the violence in which the people of communities participating in these REDD+ projects lived every day. Thus, one wing of the US Embassy in Bogotá was generating daily physical violence, while another was attempting to create development opportunities for those living in this violence despite it. Both efforts can be thought of as tightly linked to globalization, though it is clearly not a flattening globalization in this case, but rather one that reinforces North-South power dynamics by attempting to make vast swaths of another country governable by US influences. This dynamic responds Escobar's questions about the relations between development and governance today. "What is happening to development and modernity in times of globalization?" he asks. "Is development becoming naturalized, something that naturally will take place as part of globalization? Or is it rather recast as an explicit and still much-needed economic and cultural project?" (Escobar 2008, 163). In the case of BIOREDD+, and indeed REDD+ more broadly, it seems that Development, rather than becoming moot under globalization, is being reshaped to attempt to make up for the failures of globalization for many populations while using the same set of tools that have created the inequalities that globalization has wrought – much as development of the past attempted to remedy colonialism using the same othering and ideas of modernity that underpinned colonialism.

This is not to say that there were not bright spots of the projects in the communities. Community members largely got on well with the technicians that came to visit them, and they appreciated that someone from the outside was listening to their concerns and seemed to genuinely want to help them. Additionally, the end of the project, about a couple dozen or so community members had benefitted directly from being contracted by the project for various tasks.

There is also the possibility that the descendant projects of BIOREDD+ might just bring cash to the communities after all. If they do, it will not be a result of violent coercion, or trees saved,

but rather the construction of a system that enables carbon credits to be created where companies are in need of offsets. As I showed in Chapter 7, if credits do not appear, then the market collapses, along with all the investments of the technocrats in creating the market. In some ways, as I have shown, USAID's effort to get funding to communities directly, without actually mandating that they change anything, and without having the funding ensnared by government bodies who generally provide little to these communities, could be considered a subversive move. These funds could still help Los Cocos and its fellow BIOREDD+ communities to realize their own visions of development.

Yet there are some reasons for bounding such optimism. First, the money has not yet made it to the communities, a decade after the projects began. The only people with sure paychecks in this were the consultants hired by USAID. Second, the funding will be relatively little compared to all that has been spent on creating the carbon credits, which have gone to actors outside the community, and largely outside of Colombia. Third, the funds that the carbon credit sales have generated are still being managed by an NGO in Bogotá, Fondo Acción, rather than by the community itself. While this arrangement was described to me by Fondo Acción staff as one of "custodianship," individuals in the community explained that they were being asked to develop a plan for the funding before being able to access. Fourth, as with all "community benefits," it remains to be seen who specifically would benefit from any funding from the sale of carbon credits that did finally make it to the community. Los Cocos, La Hormiga, and all communities of Colombia's Pacific region, like any and all communities of the world, are neither flat nor homogeneous, and it is quite possible that any benefits from would be captured by those who have positioned themselves to receive these benefits based on building relationships with the aid contractors in the past. Finally, the question raised in Chapter 3 about autonomous development returns here. After several decades of being told what their "development" should look like, and what their relations with their territory should be, by USAID and other aid organizations in the region, based in part on the requirements of Law 70, what opportunity is there for these communities to create new spaces free of these bounds to think more openly about what autonomous development would mean and be for them? That is, once these communities have been shaped into particular ways of thinking of development, including that *improvements* in their lives are likely to be grounded in *projects*, it may be harder to escape these well-worn discourses and routines. Indeed, USAID encountered these same ruts when it tried to frame BIOREDD+ as something new in the communities. Though there may have been new components, it looked on the ground much like what they had encountered before, and people in the communities talked about it and considered it very much the latest in an unbroken lineage of similar projects. Meanwhile, the community leaders and contractors were weighed down as in all aid development efforts by endless reporting demands deemed necessary for showing accountability to the publics funding these projects, but also by the specific and vast technical and reporting demands of REDD+.

Thus, the structures of the development-conservation paradigm, and the associated incentives for their participants, are difficult to break out of for all of these participants, even when there are new "sexy" elements to these development-conservation programs like those in REDD+. This finding echoes Li's conclusion in her study of development in Indonesia, arguing that "new programs routinely retain the limitations of the programs they replace," (Li 2007, 270). The day-to-day interactions of development and conservation projects may be more humane, and the plans associated with them may recognize the agency of their participants more fully through participatory elements. This is indeed surely an improvement. Yet they are still grounded in the

same assumptions about who is in need of improvement, or who needs to conserve, and why, and what that improvement and conservation should look like. Moreover, this work has shown that the neoliberal market-based conservation mechanisms entering the development field today may in some regards be a step in the wrong direction, as they distract yet more from community members creating and realizing their own visions of development and associated relations with their territories. Moreover, as Li says, community-based development, "has not solved the problems of poverty and exclusion it was supposed to correct" (Li 2007, 270). While pieces of REDD+ may therefore be new, and the opportunity to direct funding to communities in the way that BIOREDD+ could may be novel, then, the odds remain slim, as we have seen throughout this work, that it will fundamentally change either the lives of people in these communities or forest cover in the region.

Bibliography

¡Pacifista! 2019. “#NiUnLíderMás | INMERSIÓN ¡PACIFISTA!” ¡PACIFISTA! 2019. https://pacifista.tv/niunlidermas-home/.

533–62. https://doi.org/10.1080/09636410601188463.

Accountability Framework. 2021. “Accountability Framework.” Accountability Framework. 2021. https://accountability-framework.org/.

Acheson, James M. 1975. “The Lobster Fiefs: Economic and Ecological Effects of Territoriality in the Maine Lobster Industry.” Human Ecology 3 (3): 183–207. https://doi.org/10.1007/BF01531640.

Agrawal, Arun, and Arild Angelsen. 2009. “Using Community Forest Management to Achieve REDD+ Goals.” In Realising REDD+: National Strategy and Policy Options. Bogor: Center for International Forestry Research.

Agrawal, Arun, and Clark C Gibson. 1999. “Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation.” World Development 27 (4): 629–49. https://doi.org/10.1016/S0305-750X(98)00161-2.

Agrawal, Arun, and Jesse Ribot. 1999. “Accountability in Decentralization: A Framework with South Asian and West African Cases.” The Journal of Developing Areas 33 (4): 473–502.

Agrawal, Arun, and Kent Redford. 2009. “Conservation and Displacement: An Overview.” Conservation and Society 7 (1): 1–10.

Agrawal, Arun. 2001a. “State Formation in Community Spaces? Decentralization of Control over Forests in the Kumaon Himalaya, India.” The Journal of Asian Studies 60 (1): 9. https://doi.org/10.2307/2659503.

———. 2001b. “Common Property Institutions and Sustainable Governance of Resources.” World Development 29 (10): 1649–72. https://doi.org/10.1016/S0305-750X(01)00063-8.

———. 2007. “Forests, Governance, and Sustainability: Common Property Theory and Its Contributions.” International Journal of the Commons 1 (1). https://doi.org/10.18352/ijc.10.

Agudelo, Carlos Efrén. 2005. Multiculturalismo En Colombia: Política, Inclusión y Exclusión de Poblaciones Negras. 1. ed. La Carreta Social. Medellín, Colombia: La Carreta Editores : Institut de recherche pour le developpement : Instituto Colombiano deAntropología e Historia : IEPRI, Universidad Nacional de Colombia.

Agyemang, Gloria, Brendan O’Dwyer, Jeffrey Unerman, and Mariama Awumbila. 2017. “Seeking ‘Conversations for Accountability’: Mediating the Impact of Non-Governmental Organization (NGO) Upward Accountability Processes.” Accounting, Auditing & Accountability Journal 30 (5): 982–1007. https://doi.org/10.1108/AAAJ-02-2015-1969.

Aisi, H.E. Robert G. 2005. “Statement by H.E. Robert G. Aisi Ambassador of Papua New Guinea to the United Nations.” Speech presented at the UNFCCC Seminar of Governmental Experts, Bonn, Germany, May 17. https://unfccc.int/files/meetings/seminar/application/pdf/sem_abs_papua_new_guinea__final.pdf.

Alcorn, Janis B. 1993. “Indigenous Peoples and Conservation.” Conservation Biology 7 (2): 424–26.

Alpert, Peter. 1996. “Integrated Conservation and Development Projects.” BioScience 46 (11): 845–55. https://doi.org/10.2307/1312970.

Althelia. 2019. “Althelia Climate Fund.” Althelia Funds. 2019. https://althelia.com/althelia-climate-fund/.

Amfo, Bismark, Robert Aidoo, and James Osei Mensah. 2020. “Does Labour Migration for Cocoa Production in Ghana Translate into Greater Social Benefits?” Migration and Development 0 (0): 1–18. https://doi.org/10.1080/21632324.2020.1833696.

Andrade, Rafael B. de, Jennifer K. Balch, Amoreena L. Parsons, Dolors Armenteras, Rosa Maria Roman-Cuesta, and Janette Bulkan. 2017. “Scenarios in Tropical Forest Degradation: Carbon Stock Trajectories for REDD+.” Carbon Balance and Management 12 (1): 6. https://doi.org/10.1186/s13021-017-0074-0.

Angelsen, Arild, Christopher Martius, Veronique De Sy, Amy E. Duchelle, Anne M. Larson, and Thu Thuy Pham. 2018. Transforming REDD+: Lessons and New Directions. Bogor, Indonesia: Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/007045.

Apple. 2021. “Apple and Partners Launch First-Ever $200 Million Restore Fund.” Apple Newsroom (blog). April 15, 2021. https://www.apple.com/newsroom/2021/04/apple-and-partners-launch-first-ever-200-million-restore-fund/.

Apropiación Del Territorio - Teaser. 2015. Bogotá, Colombia. https://www.youtube.com/watch?v=8uBuIrsGTeI.

Architecture for REDD+ Transactions Secretariat. 2021. “Architecture for REDD+ Transactions | TREES.” 2021. https://www.artredd.org/trees/.

ARD. 2011. “MIDAS (Más Inversión Para El Desarrollo Alternative Sostenible) Final Report.”

Asher, Kiran. 2009. Black and Green: Afro-Colombians, Development, and Nature in the Pacific Lowlands. Duke University Press.

Asia-Pacific Action Group. 1990. “The Barnett Report. A Summary of the Report of the Commission of Inquiry into Aspects of the Timber Industry in Papua New Guinea - Pacific Manuscripts Bureau.” Asia-Pacific Action Group. https://asiapacific.anu.edu.au/pambu/catalogue/index.php/barnett-report-summary-of-report-of-commission-of-inquiry-into-aspects-of-timber-i-n-papua-new-guinea.

Asiyanbi, Adeniyi P. 2016. “A Political Ecology of REDD+: Property Rights, Militarised Protectionism, and Carbonised Exclusion in Cross River.” Geoforum 77 (December): 146–56. https://doi.org/10.1016/j.geoforum.2016.10.016.

Asiyanbi, Adeniyi P., Edwin Ogar, and Oluyemi A. Akintoye. 2019. “Complexities and Surprises in Local Resistance to Neoliberal Conservation: Multiple Environmentalities, Technologies of the Self and the Poststructural Geography of Local Engagement with REDD+.” Political Geography 69 (March): 128–38. https://doi.org/10.1016/j.polgeo.2018.12.008.

Atela, Joanes. 2015. “Implementing REDD+: Evidence from Kenya.” In Carbon Conflicts and Forest Landscapes in Africa, 16. Routledge:Taylor & Francis Group.

ATLinnovacion. 2018. Grupo Prodeco Firmó Acuerdo Para La Compra Multianual de Certificados de Carbono. https://www.youtube.com/watch?v=5VfwjCp-Qkk.

Atmadja, Stibniati S, Shintia Arwida, Christopher Martius, and Pham Thu Thuy. 2018. “Financing REDD+: A Transaction among Equals, or an Uneven Playing Field.” In Transforming REDD+: Lessons and New Directions, 16.

Babon, A. 2011. “Snapshot of REDD+ in Papua New Guinea.” Info Brief 40. Bogor, Indonesia: CIFOR.

Ballvé, Teo. 2013. “Grassroots Masquerades: Development, Paramilitaries, and Land Laundering in Colombia.” Geoforum 50 (December): 62–75. https://doi.org/10.1016/j.geoforum.2013.08.001.

Banco de la República--Departamento de Investigaciones Económicas. 1960. “Explicaciones al Cartograma No. 14.” In Atlas de La Economía Colombiana. Vol. 2. Bogotá: Imprenta del Banco de la República.

Banerjee, Simanti, Silvia Secchi, Joseph Fargione, Stephen Polasky, and Steven Kraft. 2013. “How to Sell Ecosystem Services: A Guide for Designing New Markets.” Frontiers in Ecology and the Environment 11 (6): 297–304. https://doi.org/10.1890/120044.

Barbier, Edward B., and Anteneh T. Tesfaw. 2012. “Can REDD+ Save the Forest? The Role of Payments and Tenure.” Forests 3 (4): 881–95. https://doi.org/10.3390/f3040881.

Barrett, Christopher B., and Peter Arcese. 1995. “Are Integrated Conservation-Development Projects (ICDPs) Sustainable? On the Conservation of Large Mammals in Sub-Saharan Africa.” World Development 23 (7): 1073–84. https://doi.org/10.1016/0305-750X(95)00031-7.

Barry, Deborah, Anne M. Larson, and Carol J. Pierce Colfer. 2010. “Forest Tenure Reform: An Orphan with Only Uncles.” In Forests for People: Community Rights and Forest Tenure Reform. Earthscan. http://books.google.com/books?hl=en&lr=&id=vGK9DQdOmjEC&oi=fnd&pg=PR5&dq=anne+larson+2010&ots=Mry64R5ZHj&sig=j8BMgXpi7diWUzcUVTE2Dv3ymyk.

Batterman, Sarah A., Lars O. Hedin, Michiel van Breugel, Johannes Ransijn, Dylan J. Craven, and Jefferson S. Hall. 2013. “Key Role of Symbiotic Dinitrogen Fixation in Tropical Forest Secondary Succession.” Nature 502 (7470): 224–27. https://doi.org/10.1038/nature12525.

Bayrak, Mucahid, and Lawal Marafa. 2016. “Ten Years of REDD+: A Critical Review of the Impact of REDD+ on Forest-Dependent Communities.” Sustainability 8 (7): 620. https://doi.org/10.3390/su8070620.

Berkes, Fikret. 1985. “Fishermen and ‘The Tragedy of the Commons.’” Environmental Conservation 12 (3): 199–206. https://doi.org/10.1017/S0376892900015939.

———. 2010. “Devolution of Environment and Resources Governance: Trends and Future.” Environmental Conservation 37 (4): 489–500. https://doi.org/10.1017/S037689291000072X.

Bernal, Milena. 2016. “Estado Jurídico Del Prouecto Oleoducto al Pacífico.” Asociación Ambiente y Sociedad; Proceso de Comunidades Negras. https://www.ambienteysociedad.org.co/wp-content/uploads/2016/10/Estado-Proyecto-OAP-Oleoducto-pacfico.pdf.

Beymer-Farris, Betsy A., and Thomas J. Bassett. 2012. “The REDD Menace: Resurgent Protectionism in Tanzania’s Mangrove Forests.” Global Environmental Change, Adding Insult to Injury: Climate Change, Social Stratification, and the Inequities of Intervention, 22 (2): 332–41. https://doi.org/10.1016/j.gloenvcha.2011.11.006.

Black, Richard. 2012. “Stockholm: Birth of the Green Generation,” June 4, 2012, sec. Science & Environment. https://www.bbc.com/news/science-environment-18315205.

Blackman, Allen, and Peter Veit. 2018. “Titled Amazon Indigenous Communities Cut Forest Carbon Emissions.” Ecological Economics 153 (November): 56–67. https://doi.org/c.

Blackman, Allen, Leonardo Corral, Eirivelthon Santos Lima, and Gregory P. Asner. 2017. “Titling Indigenous Communities Protects Forests in the Peruvian Amazon.” Proceedings of the National Academy of Sciences 114 (16): 4123–28. https://doi.org/10.1073/pnas.1603290114.

Bolin, Anna, and Dominic Taku Tassa. 2012. “Exploring Climate Justice for Forest Communities Engaging in REDD+: Experiences from Tanzania.” Forum for Development Studies 39 (1): 5–29. https://doi.org/10.1080/08039410.2011.635380.

Bolin, Anna, Leonie Lawrence, and Matt Leggett. 2013. “Land Tenure and Fast-Tracking REDD+: Time to Reframe the Debate?” Global Canopy Programme.

Bonan, Gordon B. 2008. “Forests and Climate Change: Forcings, Feedbacks, and the Climate Benefits of Forests.” Science 320 (5882): 1444–49. https://doi.org/10.1126/science.1155121.

Börner, Jan, Sven Wunder, Sheila Wertz-Kanounnikoff, Marcos Rügnitz Tito, Ligia Pereira, and Nathalia Nascimento. 2010. “Direct Conservation Payments in the Brazilian Amazon: Scope and Equity Implications.” Ecological Economics, Special Section - Payments for Environmental Services: Reconciling Theory and Practice, 69 (6): 1272–82. https://doi.org/10.1016/j.ecolecon.2009.11.003.

Boyd, William, and James Salzman. 2011. “The Curious Case of Greening in Carbon Markets.” Environmental Law 41 (73): 24.

Bracking, Sarah. 2015a. “The Anti-Politics of Climate Finance: The Creation and Performativity of the Green Climate Fund.” Antipode 47 (2): 281–302. https://doi.org/10.1111/anti.12123.

———. 2015b. “Performativity in the Green Economy: How Far Does Climate Finance Create a Fictive Economy?” Third World Quarterly 36 (12): 2337–57. https://doi.org/10.1080/01436597.2015.1086263.

Brockington, Dan. 2002. Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania. James Currey Publishers.

Brown, David, Frances Seymour, and Leo Peskett. 2008. “How Do We Achieve REDD Co-Benefits and Avoid Doing Harm?” In Moving Ahead with REDD: Issues, Options and Implications, edited by Arild Angelsen. Bogor, Indonesia: Center for International Forestry Research.

Brown, H. Carolyn Peach, and James P. Lassoie. 2010. “Institutional Choice and Local Legitimacy in Community-Based Forest Management: Lessons from Cameroon.” Environmental Conservation 37 (03): 261–269. https://doi.org/10.1017/S0376892910000603.

Brown, Katrina. 2003. “Integrating Conservation and Development: A Case of Institutional Misfit.” Frontiers in Ecology and the Environment 1 (9): 479–87. https://doi.org/10.1890/1540-9295(2003)001[0479:ICADAC]2.0.CO;2.

Browne, Malcolm W. 1971. “The Talk of Buenaventura.” The New York Times, April 3, 1971, sec. Archives. https://www.nytimes.com/1971/04/03/archives/riches-pour-into-colombian-port-but-poverty-reigns.html.

Brundtland, Gro Harlem. 1987. World Commission on Environment and Development: Our Common Future. Oxford University Press.

Bumpus, Adam G. 2011. “The Matter of Carbon: Understanding the Materiality of TCO2e in Carbon Offsets.” Antipode 43 (3): 612–38. https://doi.org/10.1111/j.1467-8330.2011.00879.x.

Bumpus, Adam G., and Diana M. Liverman. 2008. “Accumulation by Decarbonization and the Governance of Carbon Offsets.” Economic Geography 84 (2): 127–55. https://doi.org/10.1111/j.1944-8287.2008.tb00401.x.

Busch, Jonah, and Kalifi Ferretti-Gallon. 2017. “What Drives Deforestation and What Stops It? A Meta-Analysis.” Review of Environmental Economics and Policy 11 (1): 3–23. https://doi.org/10.1093/reep/rew013.

Büscher, Bram E. 2008. “Conservation, Neoliberalism and Social Science: A Critical Reflection on the SCB 2007 Annual Meeting, South Africa.” Conservation Biology 22 (2): 229–31.

Büscher, Bram, Sian Sullivan, Katja Neves, Jim Igoe, and Dan Brockington. 2012. “Towards a Synthesized Critique of Neoliberal Biodiversity Conservation.” Capitalism Nature Socialism 23 (2): 4–30. https://doi.org/10.1080/10455752.2012.674149.

Butler, Rhett A. 2006. “Papua New Guinea’s Forests under Threat from Corruption, Illegal Logging.” Mongabay Environmental News, March 8, 2006. https://news.mongabay.com/2006/03/papua-new-guineas-forests-under-threat-from-corruption-illegal-logging/.

Cagan, Steve. 2014. “Mining Challenges in Colombia’s El Choco.” ReVista - Harvard’s Review of Latin America. https://revista.drclas.harvard.edu/book/mining-challenges-colombia%E2%80%99s-el-choco.

Callon, Michel. 1998. “An Essay on Framing and Overflowing: Economic Externalities Revisited by Sociology.” The Sociological Review 46 (1_suppl): 244–69. https://doi.org/10.1111/j.1467-954X.1998.tb03477.x.

Cames, Dr Martin, Dr Ralph O Harthan, Dr Jürg Füssler, Michael Lazarus, Carrie M Lee, Pete Erickson, and Randall Spalding-Fecher. 2016. “How Additional Is the Clean Development Mechanism? Analysis of the Application of Current Tools and Proposed Alternatives.” Berlin: Oeko Institute.

Cardenas, Juan Camilo, John Stranlund, and Cleve Willis. 2000a. “Local Environmental Control and Institutional Crowding-Out.” World Development 28 (10): 1719–33. https://doi.org/10.1016/S0305-750X(00)00055-3.

Casteñeda, Fernando Casas. 1994. “Proyecto Biopacífico: Hacia Una Cultura de La Biodiversidad.” In La Política Ambiental Del Fin de Siglo: Una Agenda Para Colombia, 151–81. Bogotá: Ministerio del Medio Ambiente, Colombia. http://biblovirtual.minambiente.gov.co:3000/DOCS/MEMORIA/MMA-0009/MMA-009_CAPITULO07.pdf.

Cavanagh, Connor, and Tor A. Benjaminsen. 2014. “Virtual Nature, Violent Accumulation: The ‘Spectacular Failure’ of Carbon Offsetting at a Ugandan National Park.” Geoforum 56 (September): 55–65. https://doi.org/10.1016/j.geoforum.2014.06.013.

Cazzolla Gatti, Roberto, and Alena Velichevskaya. 2020. “Certified ‘Sustainable’ Palm Oil Took the Place of Endangered Bornean and Sumatran Large Mammals Habitat and Tropical Forests in the Last 30 Years.” Science of The Total Environment 742 (November): 140712. https://doi.org/10.1016/j.scitotenv.2020.140712.

Cazzolla Gatti, Roberto, Simona Castaldi, Jeremy A. Lindsell, et al. 2015. “The Impact of Selective Logging and Clearcutting on Forest Structure, Tree Diversity and above-Ground Biomass of African Tropical Forests.” Ecological Research 30(1): 119–132.

Chemonics International Inc. 2015. “Biodiversity - Reduced Emissions from Deforestation and Forest Degradation (BIOREDD+) Program: Final Report.” Bogotá, Colombia: USAID.

Chervier, Colas, Gwenolé Le Velly, and Driss Ezzine-de-Blas. 2017. “When the Implementation of Payments for Biodiversity Conservation Leads to Motivation Crowding-out: A Case Study From the Cardamoms Forests, Cambodia.” Ecological Economics. https://doi.org/10.1016/j.ecolecon.2017.03.018.

Chhatre, Ashwini, Shikha Lakhanpal, Anne M Larson, Fred Nelson, Hemant Ojha, and Jagdeesh Rao. 2012. “Social Safeguards and Co-Benefits in REDD+: A Review of the Adjacent Possible.” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 654–60. https://doi.org/10.1016/j.cosust.2012.08.006.

Chhatre, Ashwini, Shikha Lakhanpal, Anne M. Larson, Fred Nelson, Hemant Ojha, and Jagdeesh Rao. 2012. “Social Safeguards and Co-Benefits in REDD+: A Review of the Adjacent Possible.” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 654–60. https://doi.org/10.1016/j.cosust.2012.08.006.

Chomitz, Kenneth. 2006. At Loggerheads?: Agricultural Expansion, Poverty Reduction, and Environment in the Tropical Forests. The World Bank. https://doi.org/10.1596/978-0-8213-6735-3.

Climate Advisers. 2017. “Linking the ICAO Global Market-Based Mechanism to REDD+ in Colombia.” Climate Advisers.

Colchester, Marcus. 2000. “Self-Determination or Environmental Determinism for Indigenous Peoples in Tropical Forest Conservation.” Conservation Biology 14 (5): 1365–67. https://doi.org/10.1046/j.1523-1739.2000.00129.x.

———. 2004. “Conservation Policy and Indigenous Peoples.” Cultural Survival Quarterly, 2004. https://www.culturalsurvival.org/publications/cultural-survival-quarterly/conservation-policy-and-indigenous-peoples.

Colfer, Carol J. Pierce. 2011. “Marginalized Forest Peoples’ Perceptions of the Legitimacy of Governance: An Exploration.” World Development 39 (12): 2147–64. https://doi.org/10.1016/j.worlddev.2011.04.012.

Colombian Government. 2015. “INDC Colombia.” https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Colombia/1/INDC%20Colombia.pdf.

Conservation International. 2019. “‘Nature Now,’ A Short Film Narrated By Greta Thunberg And George Monbiot Is Released In Advance Of Global Youth Climate Strike.” Conservation International. September 19, 2019. https://www.conservation.org/press-releases/2019/09/19/nature-now-a-short-film-narrated-by-greta-thunberg-and-george-monbiot-is-released-in-advance-of-global-youth-climate-strike.

Corbera, Esteve, and Katrina Brown. 2010. “Offsetting Benefits? Analyzing Access to Forest Carbon.” Environment and Planning. A 42 (7): 1739.

Corbera, Esteve, Katrina Brown, and W. Neil Adger. 2007. “The Equity and Legitimacy of Markets for Ecosystem Services.” Development and Change 38 (4): 587–613. https://doi.org/10.1111/j.1467-7660.2007.00425.x.

Cormier-Salem, Marie-Christine. 2017. “Let the Women Harvest the Mangrove. Carbon Policy, and Environmental Injustice.” Sustainability 9 (8): 1485. https://doi.org/10.3390/su9081485.

Corson, Catherine. 2011. “Territorialization, Enclosure and Neoliberalism: Non-State Influence in Struggles over Madagascar’s Forests.” The Journal of Peasant Studies 38 (4): 703–26. https://doi.org/10.1080/03066150.2011.607696.

Cotula, Lorenzo, and James Mayers. 2009. Tenure in REDD: Start-Point or Afterthought? London: IIED.

Cox, Susan Jane Buck. 1985. “No Tragedy of the Commons.” Environmental Ethics. February 1, 1985. https://doi.org/10.5840/enviroethics1985716.

Cronkleton, Peter, Deborah Barry, Juan M. Pulhin, and Sushil Saigal. 2010. “The Devolution of Management Rights and the Co-Management of Community Forests.” In Forests for People: Community Rights and Forest Tenure Reform, edited by Anne M. Larson, 45–68. London ; Washington: Earthscan.

Cunsolo, Ashlee, and Karen Landman, eds. 2017. Mourning Nature: Hope at the Heart of Ecological Loss and Grief. 1 edition. Montreal: McGill-Queen's University Press.

Curtis, Philip G., Christy M. Slay, Nancy L. Harris, Alexandra Tyukavina, and Matthew C. Hansen. 2018. "Classifying Drivers of Global Forest Loss." Science 361 (6407): 1108–11. https://doi.org/10.1126/science.aau3445.

Daviet, Florence, and Gaia Larsen. 2012. "Safeguarding Forests and People: A Framework for Designing a National System to Implement REDD+ Safeguards." World Resources Institute, Washington, DC.

De Friedemann, Nina. 1993. La Saga Del Negro: Presencia Africana En Colombia. Bogota, Colombia.

De Oliveira, J.A.P, Y. Telwala, H.O. Ma, and R. Rastall. 2014. "Strengthening Development in International–Local Institutional Linkages in REDD+: Lessons From Existing Forest–Carbon Initiatives." UNU-IAS Policy Report. Tokyo, Japan: United Nations University.

Dei, George J.S. 1993. "A Forest Beyond the Trees: Tree Cutting in Rural Ghana." Workshop in Political Theory and Policy Analysis, 52.

Deininger, Klaus. 1999. "Making Negotiated Land Reform Work: Initial Experience from Colombia, Brazil and South Africa." World Development 27 (4): 651–72. https://doi.org/10.1016/S0305-750X(99)00023-6.

Delacote, Philippe, Gwenolé Le Velly, and Gabriela Simonet. 2020. "Distinguishing Potential and Effective Additionality to Revisit the Location Bias of REDD+ Project." CEE-M Working Papers, WP 2018-19. https://hal.archives-ouvertes.fr/hal-01954923.

Deutschland / Wissenschaftlicher Beirat Globale Umweltveränderungen, ed. 1998. Die Anrechnung Biologischer Quellen Und Senken Im Kyoto-Protokoll: Fortschritt Oder Rückschlag Für Den Globalen Umweltschutz? Sondergutachten 1998. Bremerhaven.

Dezécache, Camille, Jean-Michel Salles, and Bruno Hérault. 2018. "Questioning Emissions-Based Approaches for the Definition of REDD+ Deforestation Baselines in High Forest Cover/Low Deforestation Countries." Carbon Balance and Management 13 (October). https://doi.org/10.1186/s13021-018-0109-1.

Díaz, Sandra, Josef Settele, Eduardo Brondízio, Hien T Ngo, Maximilien Guèze, John Agard, Almut Arneth, et al. 2019. "Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services," 44.

Dickinson, Robert Earl. 1980. "Effects of Tropical Deforestation on Climate." Studies in Third World Societies 14 (January): 411–41.

Dietz, Thomas, Elinor Ostrom, and Paul C. Stern. 2003. "The Struggle to Govern the Commons." Science 302 (5652): 1907–12. https://doi.org/10.1126/science.1091015.

Dietz, Thomas, Nives Dolsak, Elinor Ostrom, and Paul C. Stern. 2002. "The Drama of the Commons." In The Drama of the Commons, 3–35. Washington, D.C.: National Academies Press (US).

Ding, Helen, Peter Veit, Allen Blackman, Erin Gray, Katie Reytar, Juan Carlos Altamirano, and Benjamin Hodgdon. 2016. “Climate Benefits, Tenure Costs: The Economic Case for Securing Indigenous Land Rights in the Amazon.” Washington, D.C.: World Resources Institute. http://www.wri.org/sites/default/files/Climate_Benefits_Tenure_Costs.pdf.

DNP (Departamento Nacional de Planeación), CVC (Corporación Autónoma Regional Valle del Cauca), and UNICEF. 1983. “Plan de desarrollo integral para la Costa Pacífica, PLADEICOP.” DNP.

Donofrio, Stephen, Jonathan Leonard, and Philip Rothrock. 2017. “Supply Change: Tracking Corporate Commitments to Deforestation-Free Supply Chains, 2017.” Forest Trends. https://www.forest-trends.org/publications/supply-change-tracking-corporate-commitments-to-deforestation-free-supply-chains-2017/.

Dove, Michael R. 1993. “A Revisionist View of Tropical Deforestation and Development.” SSRN Scholarly Paper ID 2400854. Rochester, NY: Social Science Research Network. https://papers.ssrn.com/abstract=2400854.

Dressler, Wolfram H, Sango Mahanty, Jessica Clendenning, and Phuc Xuan To. 2015. “Rearticulating Governance through Carbon in TheLao PDR?” Environment and Planning C: Government and Policy 33 (5): 1265–83. https://doi.org/10.1068/c13200.

Duchelle, A. E., F. Seymour, M. Brockhaus, A. Angelsen, A. M. Larson, M. Moeliono, G. Y. Wong, T. T. Pham, and C. Martius. 2018. “REDD+: Lessons from National and Subnational Implementation.” https://www.cifor.org/library/6934/.

Duchelle, Amy E, Gabriela Simonet, William D Sunderlin, and Sven Wunder. 2018. “What Is REDD+ Achieving on the Ground?” Current Opinion in Environmental Sustainability 32 (June): 134–40. https://doi.org/10.1016/j.cosust.2018.07.001.

Duchelle, Amy E., Marina Cromberg, Maria Fernanda Gebara, Raissa Guerra, Tadeu Melo, Anne Larson, Peter Cronkleton, et al. 2014. “Linking Forest Tenure Reform, Environmental Compliance, and Incentives: Lessons from REDD+ Initiatives in the Brazilian Amazon.” World Development, Land Tenure and Forest Carbon Management, 55 (March): 53–67. https://doi.org/10.1016/j.worlddev.2013.01.014.

Dufrasne, Gilles. 2021. “Two Shades of Green: How Hot Air Forest Credits Are Being Used to Avoid Carbon Taxes in Colombia.” Carbon Market Watch. https://carbonmarketwatch.org/wp-content/uploads/2021/06/Two-shades-of-green_EN_WEB.pdf.

Duker, A. E. C., T. M. Tadesse, T. Soentoro, C. de Fraiture, and J. S. Kemerink-Seyoum. 2019. “The Implications of Ignoring Smallholder Agriculture in Climate-Financed Forestry Projects: Empirical Evidence from Two REDD+ Pilot Projects.” Climate Policy 19 (sup1): S36–46. https://doi.org/10.1080/14693062.2018.1532389.

Durbin, Joanna. 2013. “Addressing the Social and Environmental Risks and Benefits of REDD+, CCBA.” California.

Durschinger, Leslie, Sandra Sarmiento, and Neha Menon. 2021. “Colombia’s Carbon Market - Revolutionizing Rural Development.” Terra Global Capital. http://www.terraglobalcapital.com/sites/default/files/Terra%20Global%20-

%20Colombia%E2%80%99s%20Carbon%20Market%20%E2%80%93%20Revolutionizing%20Rural%20Development%20v1-0%20%281%29.pdf.

Dyer, Nathaniel, and Simon Counsell. 2010. “McREDD: How McKinsey ‘Cost-Curves’ Are Distorting REDD.” November 2010. Climate and Forests Policy Brief. UK: The Rainforest Action Foundation.

Eaton, Kent. 2006. “The Downside of Decentralization: Armed Clientelism in Colombia.” Security Studies 15 (4):

Ebrahim, Alnoor. 2003. “Accountability In Practice: Mechanisms for NGOs.” World Development 31 (5): 813–29. https://doi.org/10.1016/S0305-750X(03)00014-7.

Ece, Melis, James Murombedzi, and Jesse Ribot. 2017. “Disempowering Democracy: Local Representation in Community and Carbon Forestry in Africa.” Conservation and Society 15 (4): 357. https://doi.org/10.4103/cs.cs_16_103.

Econometría-CONIF. 2014. “Informe Final Madera.” Bogota, Colombia: Econometría-CONIF.

ecoPartners, Offsetters, and ClearSky Solutions. 2015. “Los Cocos REDD+ Project Description.” VCS Version 3, CCB Standards 3rd Edition.

El Congreso de Colombia. 1959. Ley 2 de 1959. http://www.ideam.gov.co/documents/24024/26915/C_Users_hbarahona_Desktop_Monica+R_normas+pag+web_ley+2+de+1959.pdf/11ec7647-b090-4ce2-b863-00b27766edf8.

El Congreso de Colombia. 2016. Ley 1819 de 2016. http://es.presidencia.gov.co/normativa/normativa/LEY%201819%20DEL%2029%20DE%20DICIEMBRE%20DE%202016.pdf.

El Espectador. 2020. “La plata del impuesto al carbono que se le embolató a Minhacienda.” El Espectador, June 9, 2020, sec. Medio Ambiente. /noticias/medio-ambiente/mas-de-400000-millones-del-impuesto-al-carbono-andan-embolatados/?outputType=amp.

El Presidente de la República de Colombia. 2017. Decreto 926 de 2017. https://funcionpublica.gov.co/eva/gestornormativo/norma.php?i=81936.

El Tiempo, Casa Editorial. 1995. “BIOPACÍFICO: PARA ADELANTE O PARA ATRÁS.” El Tiempo, June 1995. http://www.eltiempo.com/archivo/documento/MAM-352751.

Eliasch, Johan. 2008. Climate Change: Financing Global Forests: The Eliasch Review. London: TSO.

Emont, Jon. 2019. “‘Fire Begets More Fires’: Rainforests Slip Into Cycle of Destruction.” Wall Street Journal, October 16, 2019, sec. World. https://www.wsj.com/articles/fire-begets-more-fires-rainforests-slip-into-cycle-of-destruction-11571153534.

Enkvist, Per Anders, Tomas Nauclér, and Jerker Rosander. 2007. “A Cost Curve for Greenhouse Gas Reduction | McKinsey.” McKinsey & Company. https://www.mckinsey.com/business-functions/sustainability/our-insights/a-cost-curve-for-greenhouse-gas-reduction.

Escalante Polo, Aquiles. 2002. El negro en Colombia. 2nd ed. Barranqilla: Corpoación Educativa Mayor del Desarrollo Simon Bolivar.

Escobar, Arturo, and Alvaro Pedrosa, eds. 1996. Pacífico, Desarrollo o Diversidad? Estado, Capital y Movimientos Sociales En El Pacífico Colombiano. Serie Ecológica, no. 11. Santafé de Bogotá: CEREC : ECOFONDO.

Escobar, Arturo. 1992. “Planning.” In The Development Dictionary: A Guide to Knowledge as Power. Zed Books.

———. 2008. Territories of Difference: Place, Movements, Life, Redes. Durham: Duke University Press Books.

———. 2012. “Encountering Development: The Making and Unmaking of the Third World.” ACLS Humanities E-Book, Princeton studies in culture/power/history, . http://hdl.handle.net/2027/heb.31025.

Espinoza Llanos, Roberto, and Conrad Feather. 2011. “The Reality of REDD+ in Peru: Between Theory and Practice.” Forest Peoples Programme. https://www.forestpeoples.org/sites/default/files/publication/2011/11/reality-redd-peru-between-theory-and-practice-website-english-low-res.pdf.

Evans, Kate. 2019. “REDD+: Still a Critical Color on the Palette of Forest Protection Strategies.” CIFOR Forests News (blog). December 6, 2019. https://forestsnews.cifor.org/63244/redd-still-a-critical-color-on-the-palette-of-forest-protection-strategies?fnl=.

Fairhead, James, and Melissa Leach. 1996. Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic. Cambridge University Press.

Fairhead, James, Melissa Leach, and Ian Scoones. 2012. “Green Grabbing: A New Appropriation of Nature?” Journal of Peasant Studies 39 (2): 237–61. https://doi.org/10.1080/03066150.2012.671770.

Fals Borda, Orlando, and Lorenzo Muelas Hurtado. 1991. “Informe-ponencia sobre Pueblos indgenas y Grupos Etnicos.” Bogotá, Colombia: Asamblea Nacional Constituyente: Subcomisión Casos Especiales.

Fearnside, Philip M. 1999. “Forests and Global Warming Mitigation in Brazil: Opportunities in the Brazilian Forest Sector for Responses to Global Warming under the ‘Clean Development Mechanism.’” Biomass and Bioenergy 16 (3): 171–89. https://doi.org/10.1016/S0961-9534(98)00071-3.

———. 2001. “Saving Tropical Forests as a Global Warming Countermeasure: An Issue That Divides the Environmental Movement.” Ecological Economics 39 (2): 167–84. https://doi.org/10.1016/S0921-8009(01)00225-7.

Feeny, David, Fikret Berkes, Bonnie J. McCay, and James M. Acheson. 1990. “The Tragedy of the Commons: Twenty-Two Years Later.” Human Ecology 18 (1): 1–19. https://doi.org/10.1007/BF00889070.

Ferguson, James. 1994. The Anti-Politics Machine: Development, Depoliticization, and Bureaucratic Power in Lesotho. Minneapolis: University of Minnesota Press.

Finer, Matt, Sidney Novoa, Mikaela J. Weisse, Rachael Petersen, Joseph Mascaro, Tamia Souto, Forest Stearns, and Raúl García Martinez. 2018. “Combating Deforestation: From

Satellite to Intervention." Science 360 (6395): 1303–5. https://doi.org/10.1126/science.aat1203.

Firman, Tehrene. 2018. "10 Things You Should Know About Açaí Berries, Nature's 'Purple Gold.'" Good Housekeeping, June 23, 2018. https://www.goodhousekeeping.com/health/diet-nutrition/a47009/what-is-acai/.

Fishbein, Greg, and Donna Lee. 2015. "Early Lessons from Jurisdictional REDD+ and Low Emissions Development Programs." The Nature Conservancy, FCPF, World Bank Group (Http://Www. Nature. Org/Media/Climatechange/REDD+ _LED_Programs. Pdf, Last Visited February 2015). http://www.nature.org/ourinitiatives/urgentissues/global-warming-climate-change/report-jurisdictional-redd-and-led-programs.pdf.

Fleischer, Katrin, Anja Rammig, Martin G. De Kauwe, Anthony P. Walker, Tomas F. Domingues, Lucia Fuchslueger, Sabrina Garcia, et al. 2019. "Amazon Forest Response to CO 2 Fertilization Dependent on Plant Phosphorus Acquisition." Nature Geoscience, August, 1–6. https://doi.org/10.1038/s41561-019-0404-9.

Fletcher, Robert. 2010. "Neoliberal Environmentality: Towards a Poststructuralist Political Ecology of the Conservation Debate." Conservation and Society 8 (3): 171. https://doi.org/10.4103/0972-4923.73806.

Flintan, Fiona, and Ross Hughes. 2001. Integrating Conservation and Development Experience: A Review and Bibliography of the ICDP Literature. London: International Institute for Environment and Development.

Follesdal, Andreas. 1998. "Survey Article: Subsidiarity." Journal of Political Philosophy 6 (2): 190–218. https://doi.org/10.1111/1467-9760.00052.

Forest Trends. 2017. "State of European Markets 2017: Voluntary Carbon, Watershed Investment, and Biodiversity Offsets and Compensation." June 8, 2017. https://www.forest-trends.org/publications/state-european-markets-2017/.

Fortmann, Louise. 1985. Trees and Tenure: An Annotated Bibliography for Agroforesters and Others. International Council for Research in Agroforestry.

Foucault, Michel, and Paul Rabinow. 1984. The Foucault Reader. 1st ed. New York: Pantheon Books.

Foucault, Michel, Graham. Burchell, Colin Gordon, and Peter Miller. 1991. The Foucault Effect: Studies in Governmentality : With Two Lectures by and an Interview with Michel Foucault. Chicago: University of Chicago Press.

Foucault, Michel. 1994. The Order of Things: An Archaeology of the Human Sciences. Illustrated edition. New York NY: Vintage.

Franco, José Luiz de Andrade. 2013. "The Concept of Biodiversity and the History of Conservation Biology: From Wilderness Preservation to Biodiversity Conservation." História (São Paulo) 32 (2): 21–48. https://doi.org/10.1590/S0101-90742013000200003.

Friedemann, Nina S. de, and Jaime Arocha. 1986. De Sol a Sol: Génesis, Transformación y Presencia de Losnegros En Colombia. Espejo de Colombia. Bogotá, D.E: Planeta.

Friedemann, Nina S. de. 1984. “Estudios de Negros En La Antropología Colombiana.” In Un Siglo de Investigación Social: Antropologia En Colombia, edited by Jaime Arocha, 1a ed. Bogotá, D.E., Colombia: Etno.

Friends of the Earth-Ghana. 2017. “Ghana’s Mining and Forest Laws.” Accra: Friends of the Earth Ghana. https://foegh.files.wordpress.com/2017/08/ghanas-mining-and-forest-laws-know-your-rights-and-roles.pdf.

FSC-Watch. 2014. “FSC-Watch.” FSC-Watch. May 15, 2014. https://fsc-watch.com/about/.

Fuentes Pérez, José Luis. 2018. “Proyecto REDD+ 1392: Resumen Del Reporte de Monitoreo.” AENOR: Spanish Association for Standardization and Certification.

Fundación El Alcaraván. 2021. “Fundación El Alcaraván.” 2021. http://www.alcaravan.org.co/.

Garrison, Randall. 1991. “Tok Blong SPFF.” Tok Blong SPFF, 1991. http://pacificpeoplespartnership.org/wp-content/uploads/2017/04/34-Tok-Blong-SPPF-34-January-1991-m.pdf.

GCF. 2019. “GCF Database - Caquetá.” GCF Taskforce Knowledge Database. 2019. https://gcftaskforce-database.org/en/StateOverview/colombia.caqueta.

Gebara, Maria Fernanda. 2018. “Tenure Reforms in Indigenous Lands: Decentralized Forest Management or Illegalism?” Current Opinion in Environmental Sustainability 32 (June): 60–67. https://doi.org/10.1016/j.cosust.2018.04.008.

Gentry, Alwyn. 1986. “Species Richness and Floristic Composition of Choco Region Plant Communities.” Caldasia XV: 71–91.

Gentry, Alwyn. 1986. “SPECIES RICHNESS AND FLORISTIC COMPOSITION OF CHOCO REGION PLANT COMMUNITIES.” Caldasia XV: 71–91.

German Advisory Council on Global Change. 1998. The Accounting of Biological Sinks and Sources Under the Kyoto Protocol: A Step Forward or Backwards for Global Environmental Protection? Bremerhaven.

Gibson, Clark C., and C. Dustin Becker. 2000. “A Lack of Institutional Demand.” In People and Forests, edited by Clark C. Gibson, Margaret A. McKean, and Elinor Ostrom. Cambridge, Mass.: The MIT Press. https://doi.org/10.7551/mitpress/5286.003.0012.

Gifford, Lauren. 2020. “‘You Can’t Value What You Can’t Measure’: A Critical Look at Forest Carbon Accounting.” Climatic Change 161 (2): 291–306. https://doi.org/10.1007/s10584-020-02653-1.

Gilbertson, Tamra L. 2021. “Financialization of Nature and Climate Change Policy: Implications for Mining-Impacted Afro-Colombian Communities.” Community Development Journal 56 (1): 21–38. https://doi.org/10.1093/cdj/bsaa052.

Gizachew, Belachew, Rasmus Astrup, Pål Vedeld, Eliakimu M. Zahabu, and Lalisa A. Duguma. 2017. “REDD+ in Africa: Contexts and Challenges.” Natural Resources Forum, March, n/a-n/a. https://doi.org/10.1111/1477-8947.12119.

Global Carbon Project. 2018. “Global Carbon Budget 2018.” Global Carbon Project.

Goldman, Liz, and Mikaela Weisse. 2019. “Technical Blog: Global Forest Watch’s 2018 Data Update Explained.” Global Forest Watch Blog (blog). April 25, 2019.

https://blog.globalforestwatch.org/data-and-research/technical-blog-global-forest-watchs-2018-data-update-explained.

Gonzalez, Gloria. 2014. “US Feds See Althelia Risk Guarantee As Template For Similar Endeavors.” Ecosystem Marketplace (blog). May 30, 2014. https://www.ecosystemmarketplace.com/articles/us-feds-see-althelia-risk-guarantee-as-template-for-similar-endeavors/.

Gover, Kirsty. 2016. REDD+, Tenure and Indigenous Property: The Promise and Peril of a ‘Human Rights-Based Approach.’ Edward Elgar Publishing. https://www.elgaronline.com/view/9781783478309.00023.xml.

Graham, Phil. 2005. Hypercapitalism: New Media, Language, and Social Perceptions of Value. New York: Peter Lang Inc., International Academic Publishers.

Graham, Victoria, Susan G. Laurance, Alana Grech, and Oscar Venter. 2017. “Spatially Explicit Estimates of Forest Carbon Emissions, Mitigation Costs and REDD+ Opportunities in Indonesia.” Environmental Research Letters 12 (4): 044017. https://doi.org/10.1088/1748-9326/aa6656.

Grajales, J. 2013. “State Involvement, Land Grabbing and Counter-Insurgency in Colombia.” Edited by Wendy Wolford, Saturnino M. Borras, Jr., Ruth Hall, Ian Scoones, and Ben White. Development and Change Special Issue: Governing Global Land Deals: The Role of the State in the Rush for Land 44 (2): 23–44.

Grajales, Jacobo. 2011. “The Rifle and the Title: Paramilitary Violence, Land Grab and Land Control in Colombia.” Journal of Peasant Studies 38 (4): 771–92. https://doi.org/10.1080/03066150.2011.607701.

Gramsci, Antonio. 1971. Selections from the Prison Notebooks. Edited by Quintin Hoare and Geoffrey Nowell Smith. Reprint, 1989 edition. New York: International Publishers Co.

Greenpeace. 2012. “Outsourcing Hot Air.” Amsterdam: Greenpeace International.

———. 2021. “Destruction: Certified.” Greenpeace. https://www.greenpeace.org/static/planet4-international-stateless/2021/03/f66b926f-destruction_certified_09_03_21.pdf.

Gupta, Aarti, Eva Lövbrand, Esther Turnhout, and Marjanneke J Vijge. 2012. “In Pursuit of Carbon Accountability: The Politics of REDD+ Measuring, Reporting and Verification Systems.” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 726–31. https://doi.org/10.1016/j.cosust.2012.10.004.

Gupta, Joyeeta. 2012. “Glocal Forest and REDD+ Governance: Win–Win or Lose–Lose?” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 620–27. https://doi.org/10.1016/j.cosust.2012.09.014.

Gutman, P, and N Aguilar-Amuchastegui. 2012. “Reference Levels and Payments for REDD+ Lessons from the Recent Guyana–Norway Agreement.” Washington, D.C.: WWF-US.

Hagensieker, Ron, and Björn Waske. 2018. “Evaluation of Multi-Frequency SAR Images for Tropical Land Cover Mapping.” Remote Sensing 10 (2): 257. https://doi.org/10.3390/rs10020257.

Hall, Ronnie. 2014. “The Great REDD Gamble.” Amsterdam: Friends of the Earth International. https://www.foei.org/wp-content/uploads/2014/09/The-great-REDD-gamble.pdf.

Hall, Stuart, David Morley, and Kuan-Hsing Chen. 1996. Stuart Hall: Critical Dialogues in Cultural Studies. Routledge.

Hardin, Garrett. 1968. “The Tragedy of the Commons.” Science 162 (3859): 1243–48. https://doi.org/10.1126/science.162.3859.1243.

Harvey, David. 2007. A Brief History of Neoliberalism. Oxford: Oxford University Press.

Haya, Barbara. 2009. “Measuring Emissions Against an Alternative Future: Fundamental Flaws in the Structure of the Kyoto Protocol’s Clean Development Mechanism.” SSRN Electronic Journal. https://doi.org/10.2139/ssrn.1562065.

———. 2010. “Carbon Offsetting: An Efficient Way to Reduce Emissions or to Avoid Reducing Emissions? An Investigation and Analysis of Offsetting Design and Practice in India and China.” UC Berkeley. https://escholarship.org/uc/item/7jk7v95t.

———. 2019. “The California Air Resources Board’s U.S. Forest Offset Protocol Underestimates Leakage.” Berkeley, CA, USA: Center for Environmental Public Policy, UC Berkeley. https://gspp.berkeley.edu/assets/uploads/research/pdf/Policy_Brief-US_Forest_Projects-Leakage-Haya_4.pdf.

Heal, Geoffrey, and Kevin Conrad. 2005. “A Solution to Climate Change in the World’s Rainforests.” Financial Times, November 29, 2005. https://www.ft.com/content/032d0496-610c-11da-9b07-0000779e2340.

Heal, Geoffrey. 2016. Endangered Economies: How the Neglect of Nature Threatens Our Prosperity. Columbia University Press.

Hecht, S.B, A. L. Yang, B. Sijapati Basnett, C. Padoch, and N.L. Peluso. 2015. “People in Motion, Forests in Transition: Trends in Migration, Urbanization, and Remittances and Their Effects on Tropical Forests.” Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/005762.

Herrera Arango, Johana. 2018. Collective Land Tenure in Colombia: Data and Trends. Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/006877.

Heynen, Nik, and Paul Robbins. 2005. “The Neoliberalization of Nature: Governance, Privatization, Enclosure and Valuation.” Capitalism Nature Socialism 16 (1): 5–8. https://doi.org/10.1080/1045575052000335339.

Hoang, Cam, Poshendra Satyal, and Esteve Corbera. 2018. “‘This Is My Garden’: Justice Claims and Struggles over Forests in Vietnam’s REDD+.” Climate Policy 0 (0): 1–13. https://doi.org/10.1080/14693062.2018.1527202.

Hoffmann, Odile. 2002. “Collective Memory and Ethnic Identities in the Colombian Pacific.” Journal of Latin American Anthropology 7 (2): 118–38. https://doi.org/10.1525/jlca.2002.7.2.118.

Holmes, George, and Connor J. Cavanagh. 2016. “A Review of the Social Impacts of Neoliberal Conservation: Formations, Inequalities, Contestations.” Geoforum 75 (October): 199–209. https://doi.org/10.1016/j.geoforum.2016.07.014.

Holmgren, Peter. 2017. “Yale School of Forestry & Environmental Studies ISTF 2017 - Keynote Session.” January 27. https://www.youtube.com/watch?v=1ipPYvSfKnY&feature=youtu.be&list=PLH71dbCFYcxioWqeBFFe5cqM5hHn9l_KN.

Hughes, R., and F. Flintan. 2001. “Integrating Conservation and Development Experience: A Review and Bibliography of the ICDP Literature.” Report. London: International Institute for Environment and Development. http://www.oceandocs.org/handle/1834/805.

Hughes, Roland. 2019. “What’s the Latest with the Fires in Brazil?” BBC News, October 12, 2019, sec. Latin America & Caribbean. https://www.bbc.com/news/world-latin-america-49971563.

Igoe, Jim. 2017. The Nature of Spectacle: On Images, Money, and Conserving Capitalism. University of Arizona Press.

INCODER. 1999. “Los Cocos Land Title from INCODER.”

International Alliance of Indigenous-Tribal Peoples of the Tropical Forest, and International Work Group for Indigenous Affairs. n.d. “Indigenous Peoples, Forest. and Biodiversity.” Accessed May 25, 2020. https://www.iwgia.org/images/publications/0146_forests_and_biodiversity.pdf.

IUCN. 2014. “Widening Informed Stakeholder Engagement in REDD+: Engaging Indigenous Peoples in Kenya’s National REDD+ Strategy.” USAID, IUCN, Conservation International, the East African Wildlife Society.

J-PAL. 2020. “Giving Directly to Support Poor Households.” Abdul Latif Poverty Action Lab. 2020. povertyactionlab.org/case-study/giving-directly-support-poor-households.

Jacobs, Ryan. 2013. “The Forest Mafia: How Scammers Steal Millions Through Carbon Markets.” The Atlantic, October 11, 2013. https://www.theatlantic.com/international/archive/2013/10/the-forest-mafia-how-scammers-steal-millions-through-carbon-markets/280419/.

Jagger, Pamela, Kathleen Lawlor, Maria Brockhaus, Maria Fernanda Gebara, Denis Jean Sonwa, and Ida Aju Pradnja Resosudarmo. 2012. “REDD+ Safeguards in National Policy Discourse and Pilot Projects.” Analysing REDD, 301.

Kansanga, Moses Mosonsieyiri, and Isaac Luginaah. 2019. “Agrarian Livelihoods under Siege: Carbon Forestry, Tenure Constraints and the Rise of Capitalist Forest Enclosures in Ghana.” World Development 113 (January): 131–42. https://doi.org/10.1016/j.worlddev.2018.09.002.

Kareiva, Peter, Heather Tallis, Taylor H. Ricketts, Gretchen C. Daily, and Stephen Polasky. 2011. Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press. http://books.google.com/books?hl=en&lr=&id=dAU0YMB_rdEC&oi=fnd&pg=PT2&dq=joshua+goldstein+ecosystem+services&ots=9smfSgrVIf&sig=oRRaCFsEnJFVBL9LRYXU9sJd-fY.

Karsenty, Alain, and Symphorien Ongolo. 2012. “Can ‘Fragile States’ Decide to Reduce Their Deforestation? The Inappropriate Use of the Theory of Incentives with Respect to the

REDD Mechanism." Forest Policy and Economics, Emerging Economic Mechanisms for Global Forest Governance, 18 (May): 38–45. https://doi.org/10.1016/j.forpol.2011.05.006.

Kelman, Candice Carr. 2013. "Governance Lessons from Two Sumatran Integrated Conservation and Development Projects." Conservation and Society 11 (3): 247–63.

KFW and GIZ. 2015. "REDD+ Early Movers Colombia Agreement Summary."

KFW. 2019. "REDD Early Movers (REM) Programme." 2019. https://www.kfw-entwicklungsbank.de/International-financing/KfW-Development-Bank/Topics/Climate/REDD/.

Knight, Sam. 2015. "The Incredible Plan to Make Money Grow on Trees | Sam Knight." The Guardian, November 24, 2015, sec. World news. https://www.theguardian.com/world/2015/nov/24/redd-papua-new-guinea-money-grow-on-trees.

Knudsen, Michael Helt, and Jytte Agergaard. 2015. "Ghana's Cocoa Frontier in Transition: The Role of Migration and Livelihood Diversification." Geografiska Annaler: Series B, Human Geography 97 (4): 325–42. https://doi.org/10.1111/geob.12084.

Kolbert, Elizabeth. 2015a. The Sixth Extinction: An Unnatural History. Reprint edition. Picador.

———. 2015b. Field Notes from a Catastrophe: Man, Nature, and Climate Change. Updated edition. New York London Oxford New Delhi Sydney: Bloomsbury USA.

Krause, Torsten, Wain Collen, and Kimberly A. Nicholas. 2013. "Evaluating Safeguards in a Conservation Incentive Program: Participation, Consent, and Benefit Sharing in Indigenous Communities of the Ecuadorian Amazon." Ecology and Society 18 (4). https://doi.org/10.5751/ES-05733-180401.

Krauss, Clifford, David Yaffe-Bellany, and Mariana Simões. 2019. "Why Amazon Fires Keep Raging 10 Years After a Deal to End Them." The New York Times, October 10, 2019, sec. World. https://www.nytimes.com/2019/10/10/world/americas/amazon-fires-brazil-cattle.html.

Lang, Chris. 2016. "Larry Lohmann: 'The Problem Is Not "bad Baselines" but the Concept of Counterfactual Baselines Itself.'" REDD Monitor (blog). October 2016. https://redd-monitor.org/2016/10/18/larry-lohmann-the-problem-is-not-bad-baselines-but-the-concept-of-counterfactual-baselines-itself/.

Lansing, David M. 2011. "Realizing Carbon's Value: Discourse and Calculation in the Production of Carbon Forestry Offsets in Costa Rica." Antipode 43 (3): 731–53. https://doi.org/10.1111/j.1467-8330.2011.00886.x.

Larson, A.M., E. Corbera, Peter Cronkleton, Chris Van Dam, Bray Bray, M. Estrada, P. May, G. Medina, C. Navarro, and P. Pacheco. 2010. "Rights to Forests and Carbon under REDD+ Initiatives in Latin America." Center for International Forestry Research (CIFOR). https://doi.org/10.17528/cifor/003277.

Larson, Anne M. 2011. "Forest Tenure Reform in the Age of Climate Change: Lessons for REDD+." Global Environmental Change, Special Issue on The Politics and Policy of

Carbon Capture and Storage, 21 (2): 540–49. https://doi.org/10.1016/j.gloenvcha.2010.11.008.

Larson, Anne M., and Jadder Lewis-Mendoza. 2012. “Decentralisation and Devolution in Nicaragua’s North Atlantic Autonomous Region: Natural Resources and Indigenous Peoples’ Rights.” International Journal of the Commons 6 (2): 179–199.

Larson, Anne M., David Solis, Amy E. Duchelle, Stibniati Atmadja, Ida Aju Pradnja Resosudarmo, Therese Dokken, and Mella Komalasari. 2018. “Gender Lessons for Climate Initiatives: A Comparative Study of REDD+ Impacts on Subjective Wellbeing.” World Development 108 (August): 86–102. https://doi.org/10.1016/j.worlddev.2018.02.027.

Larson, Anne M., Maria Brockhaus, William D. Sunderlin, Amy Duchelle, Andrea Babon, Therese Dokken, Thu Thuy Pham, et al. 2013. “Land Tenure and REDD+: The Good, the Bad and the Ugly.” Global Environmental Change 23 (3): 678–89. https://doi.org/10.1016/j.gloenvcha.2013.02.014.

Larson, Anne, and Jesse Ribot. 2004. “Democratic Decentralisation through a Natural Resource Lens: An Introduction.” The European Journal of Development Research 16 (1): 1–25.

Leach, Melissa, and Ian Scoones. 2013. “Carbon Forestry in West Africa: The Politics of Models, Measures and Verification Processes.” Global Environmental Change 23 (5): 957–67. https://doi.org/10.1016/j.gloenvcha.2013.07.008.

Leach, Melissa, and Ian Scoones. 2015. “Political Ecologies of Carbon in Africa.” In Carbon Conflicts and Forest Landscapes in Africa, 42. London: Routledge:Taylor & Francis Group.

Leahy, Stephen. 2018. “Polar Bears Are Starving Because of Global Warming, Melting Sea Ice, Study Shows.” National Geographic. 2018. https://www.nationalgeographic.com/news/2018/02/polar-bears-starve-melting-sea-ice-global-warming-study-beaufort-sea-environment/.

———. 2019. “Why Cyclone Idai Was so Destructive.” National Geography - Environment. March 19, 2019. https://www.nationalgeographic.com/environment/2019/03/why-mozambique-cyclone-idai-was-so-destructive/.

Leal, Claudia Maria, and Eduardo Restrepo. 2003. Unos Bosques Sembrados de Aserríos. Historia de La Extracción Maderera En El Pacífico Colombiano. Medellin: COLCIENCIAS. http://www.ram-wan.net/restrepo/documentos/bosques-1.pdf.

Leal, Claudia. 2004. “Black Forests: The Pacific Lowlands of Colombia, 1850–1930.” Ph.D., United States -- California: University of California, Berkeley. http://search.proquest.com/docview/305211227/abstract/4664542B30C04684PQ/1.

Leal, Claudia. 2018. Landscapes of Freedom: Building a Postemancipation Society in the Rainforests of Western Colombia. University of Arizona Press. https://muse-jhu-edu.libproxy.berkeley.edu/book/57479/.

Leblois, Antoine. 2018. “Remote-Sensing Evidence about National Deforestation Rates in Developing Countries: What Can Be Learned from the Last Decade.” In Reference

Module in Earth Systems and Environmental Sciences. Elsevier. https://doi.org/10.1016/B978-0-12-409548-9.10871-1.

Lee, Donna, Pablo Llopis, Rob Waterworth, Roberts Geoff, and Pearson Tim. 2018. "Approaches to REDD+ Nesting Lessons Learned from Country Experiences." Washington, D.C.: World Bank.

Lee, Donna, Till Pistorius, Tim Laing, Paola Bauche, Darragh Conway, Charlotte Streck, Tracy Johns, Theo Varns, Juan Pablo Castro, and Rebecca Ashley Asare. 2015. "The Impacts of International REDD+ Finance." http://bibliotecavirtual.minam.gob.pe/biam/handle/minam/1917.

Leggett, Matthew, and Heather Lovell. 2012. "Community Perceptions of REDD+: A Case Study from Papua New Guinea." Climate Policy 12 (1): 115–34. https://doi.org/10.1080/14693062.2011.579317.

Lemaitre, Sophie. 2011. "Indigenous Peoples' Land Rights and REDD: A Case Study." Review of European Community & International Environmental Law 20 (2): 150–62. https://doi.org/10.1111/j.1467-9388.2011.00716.x.

Leyva, Pablo. 1993. "Colombia Pacífico, Tomo II," 475.

Li, Tania Murray. 2007. The Will to Improve: Governmentality, Development, and the Practice of Politics. Durham: Duke University Press Books.

Loaiza, T., U. Nehren, and G. Gerold. 2016. "REDD+ Implementation in the Ecuadorian Amazon: Why Land Configuration and Common-Pool Resources Management Matter." Forest Policy and Economics 70 (September): 67–79. https://doi.org/10.1016/j.forpol.2016.05.016.

Lohmann, Larry. 2010. "Regulation as Corruption in the Carbon Offset Markets." In Upsetting the Offset: The Political Economy of Carbon Markets, 175–91. Zed Books.

Lohmann, Larry. 2012. "Financialization, Commodification and Carbon: The Contradictions of Neoliberal Climate Policy." Socialist Register 48 (85): 107.

———. 2014. "Performative Equations and Neoliberal Commodification: The Case of Climate." In Nature Inc: Environmental Conservation in the Neoliberal Age, 158–80. Tucson, United States: University of Arizona Press. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=3411885.

———. 2016. "What Is the 'Green' in Green Growth?" In Green Growth: Ideology, Political Economy and the Alternatives, edited by Gareth Dale, Manu Mathai, and Jose Puppim de Oliveira. London: Zed Books.

Lord, Emma Jane. 2018. "Displacement, Power and REDD+: A Forest History of Carbonized Exclusion." In Global Forest Governance and Climate Change, edited by Emmanuel O. Nuesiri, 115–43. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-71946-7_5.

Lövbrand, Eva. 2009. "Revisiting the Politics of Expertise in Light of the Kyoto Negotiations on Land Use Change and Forestry." Forest Policy and Economics, Discourse and Expertise in Forest and Environmental Governance, 11 (5): 404–12. https://doi.org/10.1016/j.forpol.2008.08.007.

Lovejoy, Thomas E., and Carlos Nobre. 2019. “Amazon Tipping Point: Last Chance for Action.” Science Advances 5 (12): eaba2949. https://doi.org/10.1126/sciadv.aba2949.

Lovell, Heather, and Diana Liverman. 2010. “Understanding Carbon Offset Technologies.” New Political Economy 15 (2): 255–73. https://doi.org/10.1080/13563460903548699.

Lovell, Heather, Harriet Bulkeley, and Diana Liverman. 2009. “Carbon Offsetting: Sustaining Consumption?” Environment and Planning A: Economy and Space 41 (10): 2357–79. https://doi.org/10.1068/a40345.

Lovera-Bilderbeek, Simone. 2019. Agents, Assumptions and Motivations Behind REDD+. Edward Elgar Publishing. https://doi.org/10.4337/9781788119139.

Lujan, Breanna, and Gustavo Silva-Chávez. 2018. “Mapping Forest Finance: A Landscape of Available Sources of Finance for REDD+ and Climate Action in Forests.” Washington, D.C.: Environmental Defense Fund; Forest Trends.

Luttrell, Cecilia, Lasse Loft, Maria Fernanda Gebara, Demetrius Kweka, Maria Brockhaus, Arild Angelsen, and William D. Sunderlin. 2013. “Who Should Benefit from REDD+? Rationales and Realities.” Ecology and Society 18 (4). https://doi.org/10.5751/ES-05834-180452.

Lutz, Ernst, and Julian Caldecott. 1996. “Decentralization and Biodiversity Conservation.” 16215. Washington, D.C.: The World Bank. http://documents.worldbank.org/curated/en/1996/12/695073/decentralization-biodiversity-conservation.

Lyons, Kristen, and Peter Westoby. 2014. “Carbon Colonialism and the New Land Grab: Plantation Forestry in Uganda and Its Livelihood Impacts.” Journal of Rural Studies 36 (October): 13–21. https://doi.org/10.1016/j.jrurstud.2014.06.002.

MacKenzie, Donald. 2009. “Making Things the Same: Gases, Emission Rights and the Politics of Carbon Markets.” Accounting, Organizations and Society 34 (3): 440–55. https://doi.org/10.1016/j.aos.2008.02.004.

Mahanty, Sango, Amanda Bradley, and Sarah Milne. 2015. “The Forest Carbon Commodity Chain in Cambodia’s Voluntary Carbon Market.” In Conservation and Development in Cambodia: Exploring Frontiers of Change in Nature, State, and Society, 24. Earthscan.

Manor, James. 1999. The Political Economy of Democratic Decentralization. The World Bank. https://doi.org/10.1596/0-8213-4470-6.

Martin, Peter, and Reece Walters. 2013. “Fraud Risk and the Visibility of Carbon.” International Journal for Crime, Justice and Social Democracy, September. https://doi.org/10.5204/ijcjsd.v2i2.95.

Martínez, María Inés, ed. 2012. El Despertar de Las Comunidades Afrocolombianas: Relatos de Cinco Líderes, Dorina Hernández, Libia Grueso, Carlos Rosero, Marino Córdoba, Zulia Mena. Serie de Testimonio y Crónica. Houston, TX : San Juan, PR: LACASA ; Centro de Investigaciones Sociales.

Mashal, Mujib. 2019. “India Heat Wave, Soaring Up to 123 Degrees, Has Killed at Least 36.” The New York Times, June 13, 2019, sec. World. https://www.nytimes.com/2019/06/13/world/asia/india-heat-wave-deaths.html.

Massarella, Kate, Susannah M. Sallu, Jonathan E. Ensor, and Rob Marchant. 2018. “REDD+, Hype, Hope and Disappointment: The Dynamics of Expectations in Conservation and Development Pilot Projects.” World Development 109 (September): 375–85. https://doi.org/10.1016/j.worlddev.2018.05.006.

Matthews, William Henry, William W. Kellogg, and G. D. Robinson. 1971. Man’s Impact on the Climate. Cambridge, Mass: MIT Press.

McAfee, Kathleen, and Elizabeth N. Shapiro. 2010. “Payments for Ecosystem Services in Mexico: Nature, Neoliberalism, Social Movements, and the State.” Annals of the Association of American Geographers 100 (3): 579–99. https://doi.org/10.1080/00045601003794833.

McAfee, Kathleen. 1999. “Selling Nature to Save It? Biodiversity and Green Developmentalism.” Environment and Planning D: Society and Space 17 (2): 133–54. https://doi.org/10.1068/d170133.

McCauley, Douglas J. 2006. “Selling out on Nature.” Nature 443 (7107): 27–28. https://doi.org/10.1038/443027a.

McCay, Bonnie J. 1995. “Common and Private Concerns.” Advances in Human Ecology, January.

McElwee, Pamela D. 2016. Forests Are Gold: Trees, People, and Environmental Rule in Vietnam. Reprint edition. Seattle: University of Washington Press.

McKean, Margaret A. 2000. “Common Property: What Is It, What Is It Good for, and What Makes It Work?” In People and Forests, edited by Clark C. Gibson, Margaret A. McKean, and Elinor Ostrom. The MIT Press. https://doi.org/10.7551/mitpress/5286.003.0008.

McShane, Thomas O., and Michael P. Wells, eds. 2004. Getting Biodiversity Projects to Work: Towards More Effective Conservation and Development. Columbia University Press.

Mehta, Angeli. 2020. “Is FSC Certification Worth the Paper It’s Printed on? | Reuters Events | Sustainable Business.” Reuters Events. March 7, 2020. https://www.reutersevents.com/sustainability/fsc-certification-worth-paper-its-printed.

Meier, Gerald M. 1984. Emerging from Poverty: The Economics That Really Matters. First Edition edition. New York: Oxford University Press.

Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-Being: Synthesis. Washington, DC: Island Press.

Milne, Sarah, and Sango Mahanty. 2019. “Value and Bureaucratic Violence in the Green Economy.” Geoforum 98 (January): 133–43. https://doi.org/10.1016/j.geoforum.2018.11.003.

Milne, Sarah, Mary Milne, Fitri Nurfatriani, and Luca Tacconi. 2016. “How Is Global Climate Policy Interpreted on the Ground? Insights from the Analysis of Local Discourses about Forest Management and REDD+ in Indonesia.” Ecology and Society 21 (2). https://doi.org/10.5751/ES-08363-210206.

Milne, Sarah, Sango Mahanty, Phuc To, Wolfram Dressler, Peter J. Kanowski, and Maylee Thavat. 2018. “Learning From ‘Actually Existing’ REDD+: A Synthesis of Ethnographic Findings.” Conservation and Society Ahead of Print (October): 1–12.

Ministerio de Hacienda y Crédito Publico. 2017. Decreto 926 de 2017. http://es.presidencia.gov.co/normativa/normativa/DECRETO%20926%20DEL%2001%20DE%20JUNIO%20DE%202017.pdf.

Ministerio del Interior and El Presidente de la Republica de Colombia. 1995. Decreto 1745 de 1995.

Mitchell, Anthea L., Ake Rosenqvist, and Brice Mora. 2017. “Current Remote Sensing Approaches to Monitoring Forest Degradation in Support of Countries Measurement, Reporting and Verification (MRV) Systems for REDD+.” Carbon Balance and Management 12 (1): 9. https://doi.org/10.1186/s13021-017-0078-9.

Mkandawire, Thandika. 2010. “Aid, Accountability, and Democracy in Africa.” Social Research 77 (4): 35.

Mohammed, Essam. 2011. “Pro-Poor Benefit Distribution in REDD+: Who Gets What and Why Does It Matter?” London: IIED. http://mpra.ub.uni-muenchen.de/43648/.

Monge, Camilo. 2018. “Colombia Puts a Tax on Carbon.” Conservation Finance Network, November 27, 2018. https://www.conservationfinancenetwork.org/2018/11/27/colombia-puts-tax-on-carbon.

Monsalve, Luz Marina, and Fernando Castrillón Zapata. 2008. “La Conexión Vial Las Ánimas - Nuquí, ¿una Salida al Mar Del Pacífico, a Cualquier Precio?” Revista Semillas, October 21, 2008. http://www.semillas.org.co/es/la-conexin-vial-las-nimas-nuqu-una-salida-al-mar-del-pacfico-a-cualquier-precio.

Moore, Campbell. 2015. “Cajambre REDD+ VCS CCB Validation 2015.”

Moreno-Mateos, David, Virginie Maris, Arnaud Béchet, and Michael Curran. 2015. “The True Loss Caused by Biodiversity Offsets.” Biological Conservation. https://doi.org/10.1016/j.biocon.2015.08.016.

Mosquera Torres, Gilma, and Jacques Aprile-Gniset. 2009. Aldeas de la costa de Buenaventura. Vol. 3. Hábitats y sociedades del Pacífico. Cali, Colombia: Universidad del Valle / Distribuido por Lemoine Editores.

Mosse, David. 1999. “Colonial and Contemporary Ideologies of: The Case of Tank Irrigation Development in South India.” Modern Asian Studies 33 (02): 303–38.

———. 2004. “Is Good Policy Unimplementable? Reflections on the Ethnography of Aid Policy and Practice.” Development and Change 35 (4): 639–71. https://doi.org/10.1111/j.0012-155X.2004.00374.x.

Moutinho, Paulo, and Stephan Schwartzman, eds. 2005. Tropical Deforestation and Climate Change. Brasília, DF, Brasil : Washington, DC: Instituto de Pesquisa Ambiental da Amazônia ; Environmental Defense.

Murray, Josil P., Richard Grenyer, Sven Wunder, Niels Raes, and Julia P.G. Jones. 2015. “Spatial Patterns of Carbon, Biodiversity, Deforestation Threat, and REDD+ Projects in

Indonesia: The Delivery of Biodiversity Benefits in REDD+." Conservation Biology 29 (5): 1434–45. https://doi.org/10.1111/cobi.12500.

Myers, Norman. 1985. "Tropical Deforestation and Species Extinctions: The Latest News." Futures 17 (5): 451–63. https://doi.org/10.1016/0016-3287(85)90057-6.

Myers, Norman. 1988. "Threatened Biotas: 'Hot Spots' in Tropical Forests." Environmentalist 8 (3): 187–208. https://doi.org/10.1007/BF02240252.

Naughton-Treves, Lisa, and Cathy Day, eds. 2012. "Lessons about Land Tenure , Forest Governance, and REDD+." USAID. www.rmportal.net/landtenureforestsworkshop.

Naughton-Treves, Lisa, and Kelly Wendland. 2014. "Land Tenure and Tropical Forest Carbon Management." World Development, Land Tenure and Forest Carbon Management, 55 (March): 1–6. https://doi.org/10.1016/j.worlddev.2013.01.010.

Nel, Adrian, and Douglas Hill. 2013. "Constructing Walls of Carbon – the Complexities of Community, Carbon Sequestration and Protected Areas in Uganda." Journal of Contemporary African Studies 31 (3): 421–40. https://doi.org/10.1080/02589001.2013.802430.

Nel, Adrian. 2015. "The Neoliberalisation of Forestry Governance, Market Environmentalism and Re-Territorialisation in Uganda." Third World Quarterly 36 (12): 2294–2315. https://doi.org/10.1080/01436597.2015.1086262.

Nepstad, Daniel C., Claudia M. Stickler, Britaldo Soares Filho, and Frank Merry. 2008. "Interactions among Amazon Land Use, Forests and Climate: Prospects for a near-Term Forest Tipping Point." Philosophical Transactions of the Royal Society B: Biological Sciences 363 (1498): 1737–46. https://doi.org/10.1098/rstb.2007.0036.

Neumann, Roderick P, Eric Hirsch, Center for International Forestry Research, and Food and Agriculture Organization of the United Nations. 2000. Commercialisation of Non-Timber Forest Products: Review and Analysis of Research. Bogor, Indonesia; Rome, Italy: Center for International Forestry Research ; Food and Agriculture Organization of the United Nations.

Neurath, Rachel A. 2011. "Carbon Loss in Mineral Soil Horizons: The Effects of 120 Years of Forest Harvesting in Northern New England." M.S., United States -- New Hampshire: Dartmouth College. https://search.proquest.com/docview/921920309/abstract/9E29A18C66340C1PQ/1.

Neuteleers, Stijn, and Bart Engelen. 2015. "Talking Money: How Market-Based Valuation Can Undermine Environmental Protection." Ecological Economics 117 (September): 253–60. https://doi.org/10.1016/j.ecolecon.2014.06.022.

Newmark, William D., and John L. Hough. 2000. "Conserving Wildlife in Africa: Integrated Conservation and Development Projects and Beyond." BioScience 50 (7): 585–92. https://doi.org/10.1641/0006-3568(2000)050[0585:CWIAIC]2.0.CO;2.

Ng'weno, Bettina. 2007. Turf Wars: Territory and Citizenship in the Contemporarystate. Stanford, Calif: Stanford University Press.

Notess, Laura, Peter G Veit, Iliana Monterroso, Emmanuel Sulle, Anne M Larson, Anne-Sophie Gindroz, Julia Quaedvlieg, and Andrew Williams. 2018. “The Scramble for Land Rights.”

Ojeda, Diana. 2012. “Green Pretexts: Ecotourism, Neoliberal Conservation and Land Grabbing in Tayrona National Natural Park, Colombia.” The Journal of Peasant Studies 39 (2): 357–75. https://doi.org/10.1080/03066150.2012.658777.

Olivier, J.G.J, and J.A.H.W Peters. 2020. “Trends in Global CO2 and Total Greenhouse Gas Emissions: 2019 Report.” Netherlands: PBL Netherlands Environmental Assessment Agency.

Ortega, Sergio Camilo, A. García-Guerrero, C-A. Ruíz, J. Sabogal, and J.D. Vargas. 2010. “Deforestación Evitada: Una guía REDD+ Colombia.” Bogota, Colombia: Ministerio de Ambiente, Vivienda, y Desarrollo Territorial; Conservación Internacional Colombia; Fondo Mundial para la Naturaleza (WWF); The Nature Conservancy; Corporación Ecoversa; Fundación Natura; Agencia de Cooperación Americana (USAID); Patrimonio Natural - Fondo para la Biodiversidad y Áreas Protegidas y Fondo para la Acción Ambiental.

Osborne, Tracey Muttoo. 2011. “Carbon Forestry and Agrarian Change: Access and Land Control in a Mexican Rainforest.” Journal of Peasant Studies 38 (4): 859–83. https://doi.org/10.1080/03066150.2011.611281.

Oslender, Ulrich. 2008. “Another History of Violence: The Production of ‘Geographies of Terror’ in Colombia’s Pacific Coast Region.” Latin American Perspectives 35 (5): 77–102. https://doi.org/10.1177/0094582X08321961.

Ostrom, Elinor. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge University Press.

———. 1998. “Social Capital: A Fad or a Fundamental Concept?” Institutional Analysis, 172–214.

———. 2000. “Private and Common Property Rights.” In Encyclopedia of Law and Economics: Property Law and Economics, edited by B. Bouckaert and G. De Geest, 2nd ed. Vol. 2. Cheltenham, England: Edward Elgar Publishing Limited. https://www.elgaronline.com/view/nlm-book/9781782547457/b5_chapter4.xml.

Ovalle, Hernando. 2016. “Estudio Ambiental Del Proyecto Oleoducto al Pacífico.” Bogotá, Colombia: Asociación Ambiente y Sociedad; Proceso de Comunidades Negras. http://www.ambienteysociedad.org.co/wp-content/uploads/2016/10/Estudio-ambiental-OAP-Oleoducto-pacfico-ilovepdf-compressed.pdf.

Palacios, Marco, and Frank Safford. 2002. Colombia: País Fragmentado, Sociedad Dividida : Su Historia. Editorial Norma. http://books.google.com/books/about/Colombia.html?id=ETh7T9ax6ekC&pgis=1.

Palacios, Marco. 2003. Entre la Legitimidad y la violencia: Colombia 1875-1994. Second Edition. Bogotá: Editorial Norma.

Paschel, Tianna S. 2018. Becoming Black Political Subjects: Movements and Ethno-Racial Rights in Colombia and Brazil. Reprint edition. Princeton University Press.

Pasgaard, M., and O. Mertz. 2016. “Desirable Qualities of REDD+ Projects Not Considered in Decisions of Project Locations.” Environmental Research Letters 11 (11): 114014. https://doi.org/10.1088/1748-9326/11/11/114014.

Payne, Octavia, and Sarah Alix Mann. 2015. “Zooming In: ‘Sustainable’ Cocoa Producer Destroys Pristine Forest in Peru.” Washington, D.C.: World Resources Institute. https://www.wri.org/insights/zooming-sustainable-cocoa-producer-destroys-pristine-forest-peru.

Paz Rentería, Jafeth. 2014. Los Afrocolombianos y El Territorio: Análisis Desde La Teoría de La Captura Del Estado. Colección Diversidad Étnica y Cultural 2. Bogotá: Grupo Editorial Ibañez.

Pearce, Fred. 2015. “Green Grab, Red Light.” New Scientist 225 (3010): 30–31. https://doi.org/10.1016/S0262-4079(15)60402-X.

Peet, Richard, and Michael Watts. 1996. Liberation Ecologies: Environment, Development, Social Movements. Routledge.

Peluso, Nancy Lee, and Peter Vandergeest. 2020. “Writing Political Forests.” Antipode 52 (4): 1083–1103. https://doi.org/10.1111/anti.12636.

Peluso, Nancy Lee. 1996. “Fruit Trees and Family Trees in an Anthropogenic Forest: Ethics of Access, Property Zones, and Environmental Change in Indonesia.” Comparative Studies in Society and History 38 (3): 510–48.

Peskett, Leo, Kate Schreckenberg, and Jessica Brown. 2011. “Institutional Approaches for Carbon Financing in the Forest Sector: Learning Lessons for REDD+ from Forest Carbon Projects in Uganda.” Environmental Science & Policy, Governing and Implementing REDD+, 14 (2): 216–29. https://doi.org/10.1016/j.envsci.2010.10.004.

Phelps, Jacob, Edward L. Webb, and Arun Agrawal. 2010. “Does REDD+ Threaten to Recentralize Forest Governance.” Science 328 (5976): 312–13.

Phillips, Oliver L., Roel J. W. Brienen, and the RAINFOR collaboration. 2017. “Carbon Uptake by Mature Amazon Forests Has Mitigated Amazon Nations’ Carbon Emissions.” Carbon Balance and Management 12 (1): 1. https://doi.org/10.1186/s13021-016-0069-2.

Pirard, Romain. 2012. “Market-Based Instruments for Biodiversity and Ecosystem Services: A Lexicon.” Environmental Science & Policy 19–20 (May): 59–68. https://doi.org/10.1016/j.envsci.2012.02.001.

Pistorius, Till, C. B. Schmitt, DINAH Benick, STEFFEN Entenmann, and Sabine Reinecke. 2011. “Greening REDD+–Challenges and Opportunities for Integrating Biodiversity Safeguards at and across Policy Levels.” German Journal of Forest Science. Allg. Forst- u. Jagd Zeitung 182 (5/6): 82–98.

Pokorny, Benno, James Johnson, Gabriel Medina, and Lisa Hoch. 2012. “Market-Based Conservation of the Amazonian Forests: Revisiting Win–Win Expectations.” Geoforum, The Global Rise and Local Implications of Market-Oriented Conservation Governance, 43 (3): 387–401. https://doi.org/10.1016/j.geoforum.2010.08.002.

Popkin, Gabriel. 2019. “How Much Can Forests Fight Climate Change?” Nature 565 (January): 280. https://doi.org/10.1038/d41586-019-00122-z.

Potts, Matthew D., Lisa C. Kelley, and Hannah M. Doll. 2013. “Maximizing Biodiversity Co-Benefits under REDD+: A Decoupled Approach.” Environmental Research Letters 8 (2): 024019. https://doi.org/10.1088/1748-9326/8/2/024019.

Prem, Mounu, Santiago Saavedra, and Juan F. Vargas. 2018. “End-of-Conflict Deforestation: Evidence From Colombia’s Peace Agreement.” SSRN Scholarly Paper ID 3306715. Rochester, NY: Social Science Research Network. https://papers.ssrn.com/abstract=3306715.

Pretty, Jules, and David Smith. 2004. “Social Capital in Biodiversity Conservation and Management.” Conservation Biology 18 (3): 631–38. https://doi.org/10.1111/j.1523-1739.2004.00126.x.

Pugh, Thomas A. M., Mats Lindeskog, Benjamin Smith, Benjamin Poulter, Almut Arneth, Vanessa Haverd, and Leonardo Calle. 2019. “Role of Forest Regrowth in Global Carbon Sink Dynamics.” Proceedings of the National Academy of Sciences 116 (10): 4382–87. https://doi.org/10.1073/pnas.1810512116.

Pulhin, Juan M., Anne M. Larson, and Pablo Pacheco. 2010. “Regulations as Barriers to Community Benefits in Tenure Reform.” In Forests for People: Community Rights and Forest Tenure Reform, edited by Anne M. Larson, 139–59. London ; Washington: Earthscan.

Quarles van Ufford, Philip, and Ananta Kumar Giri, eds. 2003. A Moral Critique of Development: In Search of Global Responsibilities. Mirano, Venice : London ; New York: Routledge.

Rajab, Yasmin Abou, Christoph Leuschner, Henry Barus, Aiyen Tjoa, and Dietrich Hertel. 2016. “Cacao Cultivation under Diverse Shade Tree Cover Allows High Carbon Storage and Sequestration without Yield Losses.” PLOS ONE 11 (2): e0149949. https://doi.org/10.1371/journal.pone.0149949.

Rama Judicial, República de Colombia. 1991. Constitución Política de Colombia.

REDD-Monitor. 2021. “REDD-Monitor.” March 13, 2021. https://redd-monitor.org/.

Reed, Pablo. 2011. “REDD+ and the Indigenous Question: A Case Study from Ecuador.” Forests 2 (4): 525–49. https://doi.org/10.3390/f2020525.

Repetto, Robert. 2001. “The Clean Development Mechanism: Institutional Breakthrough or Institutional Nightmare.” Policy Sciences 34: 303–27.

Restrepo, Eduardo. 1996. “Los Tuqueros Negros Del Pacífico Sur Colombiano.” In Renacientes Del Guandal: “Grupos Negros” de Los Ríos Satinga y Sanquianga Pacífico Sur Colombiano., edited by Jorge Ignacio del Valle and Eduardo Restrepo, 244–98. Bogotá: BioPacífico, Universidad Nacional. http://www.ram-wan.net/restrepo/documentos/tuqueros.pdf.

———. 2004. “Ethnicization of Blackness in Colombia: Toward de-Racializing Theoretical and Political Imagination.” Cultural Studies 18 (5): 698–753. https://doi.org/10.1080/0950238042000260405.

———. 2013a. Etnización de la negridad: la invención de las “comunidades negras” como grupo étnico en Colombia. Geneologías de la Negridad. Popayan, Colombia: Editorial Universidad del Cauca.

———. 2013b. “The biodiversity turn in the imagination of the Colombian Pacific,” no. 1: 29.

Ribis, Andrea, and Nick Mascarenhas. 1994. “Indigenous Peoples after UNCED.” Cultural Survival Quarterly, March 1994. https://www.culturalsurvival.org/publications/cultural-survival-quarterly/indigenous-peoples-after-unced.

Ribot, Jesse C., Arun Agrawal, and Anne M. Larson. 2006. “Recentralizing While Decentralizing: How National Governments Reappropriate Forest Resources.” World Development 34 (11): 1864–86. https://doi.org/10.1016/j.worlddev.2005.11.020.

Ribot, Jesse, and Anne Larson, eds. 2005. Democratic Decentralization through a Natural Resource Lens. London and New York: Routledge:Taylor & Francis Group.

Ribot, Jesse, and Anne M. Larson. 2012. “Reducing REDD Risks: Affirmative Policy on an Uneven Playing Field.” International Journal of the Commons 6 (2).

Ribot, Jesse, Arun Agrawal, and Anne Larson. 2006. “Recentralizing While Decentralizing: How National Governments Reappropriate Forest Resources.” World Development 34 (11): 1864–86. https://doi.org/10.1016/j.worlddev.2005.11.020.

Ribot, Jesse C. 1996. “Participation without Representation: Chiefs, Councils, and Forestry Law in the West African Sahel.” Cultural Survival Quarterly 20 (3). http://www.africabib.org/rec.php?RID=P00048214.

Ribot, Jesse. 2001. “Local Actors, Powers and Accountability in African Decentralizations: A Review of Issues.” International Development Research Centre of Canada Assessment of Social Policy Reforms Initiative 25: 104.

———. 2002. “Democratic Decentralization of Natural Resources: Institutionalizing Popular Participation.” http://agris.fao.org/agris-search/search.do?recordID=GB2013202786.

———. 2003. “Democratic Decentralisation of Natural Resources: Institutional Choice and Discretionary Power Transfers in Sub-Saharan Africa.” Public Administration and Development 23 (1): 53–65.

Rights and Resources Initiative (RRI). 2015. “Who Owns the World’s Land?” Washington, D.C.: Rights and Resources Initiative (RRI). http://rightsandresources.org/wp-content/uploads/GlobalBaseline_complete_web.pdf.

Robinson, Brian E., Margaret B. Holland, and Lisa Naughton-Treves. 2014. “Does Secure Land Tenure Save Forests? A Meta-Analysis of the Relationship between Land Tenure and Tropical Deforestation.” Global Environmental Change 29 (November): 281–93. https://doi.org/10.1016/j.gloenvcha.2013.05.012.

Robson, James P. 2009. “Out-Migration and Commons Management: Social and Ecological Change in a High Biodiversity Region of Oaxaca, Mexico.” International Journal of Biodiversity Science & Management 5 (1): 21–34. https://doi.org/10.1080/17451590902775137.

Robson, James P., and Prateep K. Nayak. 2010. “Rural Out-Migration and Resource-Dependent Communities in Mexico and India.” Population and Environment 32 (2–3): 263–84. https://doi.org/10.1007/s11111-010-0121-1.

Rode, Julian, Erik Gómez-Baggethun, and Torsten Krause. 2015. “Motivation Crowding by Economic Incentives in Conservation Policy: A Review of the Empirical Evidence.” Ecological Economics 117 (September): 270–82. https://doi.org/10.1016/j.ecolecon.2014.11.019.

Rojas, Diana Marcela. 2010. “Alliance for Progress in Colombia.” Análisis Político 23 (70): 91–124.

Romijn, Erika, John Herbert Ainembabazi, Arief Wijaya, Martin Herold, Arild Angelsen, Louis Verchot, and Daniel Murdiyarso. 2013. “Exploring Different Forest Definitions and Their Impact on Developing REDD+ Reference Emission Levels: A Case Study for Indonesia.” Environmental Science & Policy 33 (November): 246–59. https://doi.org/10.1016/j.envsci.2013.06.002.

Rose, Carol M. 1994. Property And Persuasion: Essays On The History, Theory, And Rhetoric Of Ownership. Avalon Publishing.

Rose, Nikolas. 1999. Powers of Freedom: Reframing Political Thought. Cambridge, U.K.: Cambridge University Press. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=201623.

Rosero, Carlos. 2002. “Los Afrodescendientes y El Conflicto Armado En Colombia: La Insistencia En Lo Propio Como Alternativa.” In Afrodescendientes En Las Américas: Trayectorias Sociales e Identitarias : 150 Años de La Abolición de La Esclavitud En Colombia, edited by Claudia Mosquera, Mauricio Pardo, and Odile Hoffmann. Bogotá, Colombia: Universidad Nacional de Colombia.

Rostow, Walt Whitman. 1990. The Stages of Economic Growth: A Non-Communist Manifesto. Cambridge University Press.

Rotter, Jonathan, and Kyle Danish. 2000. “Forest Carbon and the Kyoto Protocol’s Clean Development Mechanism.” Journal of Forestry, 10.

Sachs, Wolfgang. 1992. The Development Dictionary: A Guide to Knowledge as Power. Zed Books.

Saeed, Abdul-Razak, Constance McDermott, and Emily Boyd. 2017. “Are REDD+ Community Forest Projects Following the Principles for Collective Action, as Proposed by Ostrom?” International Journal of the Commons 11 (1). https://doi.org/10.18352/ijc.700.

Salzman, James, Genevieve Bennett, Nathaniel Carroll, Allie Goldstein, and Michael Jenkins. 2018. “The Global Status and Trends of Payments for Ecosystem Services.” Nature Sustainability 1 (3): 136–44. https://doi.org/10.1038/s41893-018-0033-0.

Sanchez-Azofeifa, Arturo, Jose Antonio Guzmán, Carlos A. Campos, Saulo Castro, Virginia Garcia-Millan, Joanne Nightingale, and Cassidy Rankine. 2017. “Twenty-First Century Remote Sensing Technologies Are Revolutionizing the Study of Tropical Forests.” Biotropica 0 (0): 1–16. https://doi.org/10.1111/btp.12454.

Santilli, Márcio, Paulo Moutinho, Stephan Schwartzman, Daniel Nepstad, Lisa Curran, and Carlos Nobre. 2005. “Tropical Deforestation and the Kyoto Protocol.” Climatic Change 71 (3): 267–76.

Sarmiento Barletti, J. P., and A. M. Larson. 2017. “Rights Abuse Allegations in the Context of REDD+ Readiness and Implementation: A Preliminary Review and Proposal for Moving Forward.” Center for International Forestry Research. https://doi.org/10.17528/cifor/006630.

Sarmiento, Mariana. 2013. “Colombia Takes Lead In Latin American Biodiversity Offsetting.” Ecosystem Marketplace (blog). July 24, 2013. https://www.ecosystemmarketplace.com/articles/colombia-takes-lead-br-in-latin-american-biodiversity-offsetting-2/.

Sayer, J.A., and Michael Wells. 2004. “The Pathology of Projects.” In Getting Biodiversity Projects to Work: Towards More Effective Conservation and Development, 35–48. New York, UNITED STATES: Columbia University Press. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=997402.

Schapiro, Mark. 2009. “GM’s Money Trees.” Mother Jones, 2009. https://www.motherjones.com/environment/2009/11/gms-money-trees/.

Scheba, Andreas, and O. Sarobidy Rakotonarivo. 2016. “Territorialising REDD+: Conflicts over Market-Based Forest Conservation in Lindi, Tanzania.” Land Use Policy 57 (November): 625–37. https://doi.org/10.1016/j.landusepol.2016.06.028.

Schlamadinger, Bernhard, and Gregg Marland. 2000. “Land Use & Global Climate Change: Forests, Land Management, and the Kyoto Protocol.” Washington, D.C.: Pew Center on Global Climate Change. https://www.c2es.org/document/land-use-global-climate-change-forests-land-management-and-the-kyoto-protocol/.

Schwartzman, S., Moreira, A., & Nepstad, D. (2000). “Rethinking Tropical Forest Conservation: Perils in Parks.” Conservation Biology 14 (5), 1351–1357. https://doi.org/10.1046/j.1523-1739.2000.99329.x

Schwartzman, Steve, and Christina McCain. 2019. “What ProPublica’s Forest Carbon Credits Story Gets Wrong – and Right.” Climate 411 (blog). May 23, 2019. http://blogs.edf.org/climate411/2019/05/23/what-propublicas-forest-carbon-credits-story-gets-wrong-and-right/.

Scott, James C. 1999. Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven: Yale University Press.

———. 1985. Weapons of the Weak: Everyday Forms of Peasant Resistance. Yale University Press.

Segura Warnholtz, Gerardo, Mercedes Fernandez, James Smyle, and Jenny Springer. 2017. “Securing Forest Tenure for Rural Development: Lessons from Six COuntries in Latin America.” PROFOR, The World Bank. http://profor.info/sites/profor.info/files/PROFOR_ForestTenure_low.pdf.

Semana. 2017. “Asociación de Negros del Río Yurumanguí: cultivadores de esperanza.” Semana, October 14, 2017. https://www.semana.com/nacion/articulo/mejores-lideres-2017asociacion-de-negros--del-rio-yurumangui/543948.

Seyller, C., S. Desbureaux, S. Ongolo, A. Karsenty, G. Simonet, J. Faure, and L. Brimont. 2016. “The ‘virtual Economy’ of REDD+ Projects: Does Private Certification of REDD+ Projects Ensure Their Environmental Integrity?” International Forestry Review 18 (2): 231–46. https://doi.org/10.1505/146554816818966336.

Seymour, Frances, and Jonah Busch. 2016. Why Forests? Why Now?: The Science, Economics, and Politics of Tropical Forests and Climate Change. Brookings Institution Press.

Shapiro, Mark. 2010. “Conning the Climate: Inside the Carbon-Trading Shell Game.” Harpers, February 2010. http://citizensclimatelobby.org/files/Conning-the-Climate.pdf.

Shore, Cris. 2008. “Audit Culture and Illiberal Governance: Universities and the Politics of Accountability.” Anthropological Theory 8 (3): 278–98. https://doi.org/10.1177/1463499608093815.

Sikor, Thomas, ed. 2013. “REDD+: Justice Effects of Technical Design.” In The Justices and Injustices of Ecosystem Services, 1 edition. New York: Routledge.

Sills, Erin O., Stibniati S Atmadja, Claudio de Sassi, Amy E Duchelle, Demetrius Leo Kweka, Ida Aju Pradnja Resosudarmo, and William D Sunderlin. 2014. “REDD+ on the Ground: Global Insights from Local Contexts | REDD+ on the Ground - CIFOR.” Bogor, Indonesia: CIFOR. http://www.cifor.org/redd-case-book/part-3-synthesis/redd-ground-global-insights-local-contexts/.

Silva-Chávez, Gustavo, Brian Schaap, and Jessica Breitfeller. 2015. “REDD+ Finance Flows 2009-2014 Trends and Lessons Learned in REDDX Countries.”

Simonet, G., A. Agrawal, F. Bénédet, M. Cromberg, C. de Perthuis, D. Haggard, N. Jansen, et al. 2021. “ID-RECCO, International Database on REDD+ Projects and Programs, Linking Economic, Carbon and Communities Data. Version 3.0.” CEC, CIRAD, IFRI. www.reddprojectsdatabase.org.

Simonet, Gabriela, Alain Karsenty, Christian de Perthuis, Pete Newton, and Brian Schaap. 2015. “REDD+ Projects in 2014: An Overview Based on a New Database and Typology.” Climate Economics Chair, Paris-Dauphine University, Information and Debates Series, , no. No. 32. http://www.chaireeconomieduclimat.org/wp-content/uploads/2015/07/15-07-17_ID32_Simonet1.pdf.

Skutsch, Margaret, Esther Turnhout, Margaret Skutsch, and Esther Turnhout. 2018. “How REDD+ Is Performing Communities.” Forests 9 (10): 638. https://doi.org/10.3390/f9100638.

Song, Lisa. 2019. “An (Even More) Inconvenient Truth: Why Carbon Credits For Forest Preservation May Be Worse Than Nothing.” ProPublica, May 22, 2019. https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/.

South Pole Carbon. 2019. “South Pole Has Developed over 700 Climate Action Projects Worldwide.” South Pole. 2019. https://www.southpole.com/projects.

Stephan, Benjamin. 2012. “Bringing Discourse to the Market: The Commodification of Avoided Deforestation.” Environmental Politics 21 (4): 621–39. https://doi.org/10.1080/09644016.2012.688357.

Stern, Nicholas. 2006. “Stern Review Report.” London: HM Treasury. https://webarchive.nationalarchives.gov.uk/20061209025123/http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm.

Stevens, Caleb, Robert Winterbottom, Jenny Springer, and Katie Reytar. 2014. “Securing Rights, Combating Climate Change: How Strengthening Community Foest Rights Mitigates Climate Change.” Washington, D.C: World Resources Institute, Rights and Resources Institute.

Stone, Peter. 2019. “‘Swampy Symbiosis’: Fossil Fuel Industry Has More Clout than Ever under Trump.” The Guardian, September 27, 2019, sec. Environment. https://www.theguardian.com/environment/2019/sep/27/fossil-fuel-industry-clout-trump-era.

Streck, Charlotte, and Sebastian M. Scholz. 2006. “The Role of Forests in Global Climate Change: Whence We Come and Where We Go.” International Affairs (Royal Institute of International Affairs 1944-) 82 (5): 861–79.

Streck, Charlotte. 2012. “Financing REDD+: Matching Needs and Ends.” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 628–37. https://doi.org/10.1016/j.cosust.2012.10.001.

Streck, Charlotte. 2021. “Shades of REDD+: Corresponding Adjustments, Kyoto Protocol Nostalgia, and a Proposed Way Forward.” Ecosystem Marketplace (blog). February 25, 2021. https://www.ecosystemmarketplace.com/articles/shades-of-reddcorresponding-adjustments-kyoto-protocol-nostalgia-and-a-proposed-way-forward/.

Sunderlin, William D, Anne M Larson, and Juan Pablo Sarmiento Barletti. 2018. “Land and Carbon Tenure: Some - but Insufficient - Progress.” In Transforming REDD+: Lessons and New Directions, edited by Arild Angelsen, Christopher Martius, Veronica de Sy, Amy E. Duchelle, Anne M. Larson, and Thu Thuy Pham. Center for International Forestry Research (CIFOR), Bogor, Indonesia. https://doi.org/10.17528/cifor/007045.

Sunderlin, William D, Anne M Larson, and Peter Cronkleton. 2009. “Forest Tenure Rights and REDD+.” In Realising REDD+, 12.

Sunderlin, William D, Cristy Desta Pratama, Astrid Bos, Valerio Avitabile, Erin O. Sills, Claudio de Sassi, Shijo Joseph, Made Agustavia, Uji Astrono Pribadi, and Aneesh Anandadas. 2014. “REDD+ on the Ground: The Need for Scientific Evidence.” In REDD+ on the Ground: Global Insights from Local Contexts. Bogor, Indonesia: CIFOR. http://www.cifor.org/redd-case-book/part-3-synthesis/redd-ground-global-insights-local-contexts/.

Sunderlin, William D., Andini Desita Ekaputri, Erin O. Sills, Amy E. Duchelle, Demetrius Kweka, Rachael Diprose, Nike Doggart, et al. 2014. The Challenge of Establishing REDD+ on the Ground: Insights from 23 Subnational Initiatives in Six Countries. CIFOR.

https://books.google.com/books?hl=en&lr=&id=5Ze2AwAAQBAJ&oi=fnd&pg=PR3&dq=redd%2B&ots=5ktGMugjZV&sig=yb0fjKee3069nQoOWqeJqnUtZ5s.

Sunderlin, William D., Andini Desita Ekaputri, Erin O. Sills, Amy E. Duchelle, Demetrius Kweka, Rachael Diprose, Nike Doggart, et al. 2014. The Challenge of Establishing REDD+ on the Ground: Insights from 23 Subnational Initiatives in Six Countries. CIFOR. https://books.google.com/books?hl=en&lr=&id=5Ze2AwAAQBAJ&oi=fnd&pg=PR3&dq=redd%2B&ots=5ktGMugjZV&sig=yb0fjKee3069nQoOWqeJqnUtZ5s.

Sunderlin, William D., Anne M. Larson, Amy E. Duchelle, Ida Aju Pradnja Resosudarmo, Thu Ba Huynh, Abdon Awono, and Therese Dokken. 2014. "How Are REDD+ Proponents Addressing Tenure Problems? Evidence from Brazil, Cameroon, Tanzania, Indonesia, and Vietnam." World Development, Land Tenure and Forest Carbon Management, 55 (March): 37–52. https://doi.org/10.1016/j.worlddev.2013.01.013.

Sunderlin, William D., Claudio de Sassi, Erin O. Sills, Amy E. Duchelle, Anne M. Larson, Ida Aju Pradnja Resosudarmo, Abdon Awono, Demetrius Leo Kweka, and Thu Ba Huynh. 2018. "Creating an Appropriate Tenure Foundation for REDD+: The Record to Date and Prospects for the Future." World Development 106 (June): 376–92. https://doi.org/10.1016/j.worlddev.2018.01.010.

Sunderlin, William. 2011. "The Global Forest Tenure Transition: Background, Substance and Prospects." In Forests and People: Property, Governance, and Human Rights, edited by Thomas Sikor and Johannes Stahl, 19–32. London ; New York: Routledge.

Takoudjou, Stéphane Momo, Pierre Ploton, Bonaventure Sonké, Jan Hackenberg, Sébastien Griffon, Francois de Coligny, Narcisse Guy Kamdem, et al. 2018. "Using Terrestrial Laser Scanning Data to Estimate Large Tropical Trees Biomass and Calibrate Allometric Models: A Comparison with Traditional Destructive Approach." Methods in Ecology and Evolution 9 (4): 905–16. https://doi.org/10.1111/2041-210X.12933.

Taskforce on Scaling Voluntary Carbon Markets. 2021. "Taskforce on Scaling Voluntary Carbon Markets." Taskforce on Scaling Voluntary Carbon Markets. https://www.iif.com/Portals/1/Files/TSVCM_Report.pdf.

Tauli-Corpuz, Victoria, Eleonor Baldo-Soriano, Helen Magata, Christine Golocan, Maribeth V. Bugtong, Raymond de Chavez, Leah Enkiwe-Abayao, and Joji Carino. 2009. Guide on Climate Change & Indigenous Peoples. Edited by Raymond de Chavez and Victoria Tauli-Corpuz. 2nd ed. Baguio City, Philippines: Tebtebba Foundation.

Terborgh, John. 2000. "The Fate of Tropical Forests: A Matter of Stewardship." Conservation Biology 14 (5): 1358–61. https://doi.org/10.1046/j.1523-1739.2000.00136.x.

Terra Global Capital. 2014. "VM0006 Methodology for Carbon Accounting for Mosaic and Landscape-Scale REDD Projects Version 2.1_0.Pdf." Verified Carbon Standard.

The Economist. 2019. "Why Colombia's Pacific Coast Is so Poor." The Economist, August 29, 2019. https://www.economist.com/the-americas/2019/08/29/why-colombias-pacific-coast-is-so-poor.

Tsing, Anna Lowenhaupt. 2004. Friction: An Ethnography of Global Connection. Princeton, United States: Princeton University Press. http://ebookcentral.proquest.com/lib/berkeley-ebooks/detail.action?docID=815525.

Turnhout, Esther. 2018. “The Politics of Environmental Knowledge.” Conservation and Society 16 (3): 363. https://doi.org/10.4103/cs.cs_17_35.

Uddhammar, Emil. 2006. “Development, Conservation and Tourism: Conflict or Symbiosis?” Review of International Political Economy 13 (4): 656–78. https://doi.org/10.1080/09692290600839923.

Ulloa, Astrid. 2005. The Ecological Native: Indigenous Peoples’ Movements and Eco-Governmentality in Colombia. 1st edition. New York: Routledge.

UNDP REDD+. 2017. “Towards a Common Understanding of REDD+ under the UNFCCC.” Technical Resource Series 3. New York, NY, USA: UN-REDD Programme. http://www.unredd.net/documents/redd-papers-and-publications-90/un-redd-publications-1191/technical-resources-series/15901-towards-a-common-understanding-of-redd-under-the-unfccc.html.

United Nations Framework Convention on Climate Change. 2011. Report of the Conference of the Parties on Its Sixteenth Session, Held in Cancun from 29 November to 10 December 2010 and Part Two: Action Taken by the Conference of the Parties at Its Sixteenth Session. Vol. FCCC/CP/2010/7/Add.1-Dec. 1/CP.16. https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=12.

USAID. 2015. “Less CO2, More Development: REDD+ on the Colombian Pacific Coast.” USAID.

Van Cott, Donna Lee. 2000. “Latin America: Constitutional Reform and Ethnic Right.” Parliamentary Affairs 53 (1): 41–54. https://doi.org/10.1093/pa/53.1.41.

Vandergeest, Peter, and Nancy Lee Peluso. 1995. “Territorialization and State Power in Thailand.” Theory and Society 24 (3): 385–426. https://doi.org/10.1007/BF00993352.

Vandergeest, Peter, and Nancy Lee Peluso. 2006. “Empires of Forestry: Professional Forestry and State Power in Southeast Asia, Part 2.” Environment and History, 36.

Vatn, Arild, George Kajembe, Elvis Mosi, Maria Nantongo, and Dos Santos Silayo. 2017. “What Does It Take to Institute REDD +? An Analysis of the Kilosa REDD + Pilot, Tanzania.” Forest Policy and Economics 83 (October): 1–9. https://doi.org/10.1016/j.forpol.2017.05.004.

Veit, Peter G., Darryl Vhugen, and Jonathan Miner. 2012. “Threats to Village Land in Tanzania Implications for REDD+ Benefit-Sharing Arrangements.” In Lessons about Land Tenure , Forest Governance, and REDD+. USAID. www.rmportal.net/landtenureforestsworkshop.

Velez, Maria Alejandra, Juan Robalino, Juan-Camilo Cárdenas, Andrea Paz, and Eduardo Pacay. 2019. “Is Collective Titling Enough to Protect Forests? Evidence from Afro-Descendant Communities in the Colombian Pacific Region.” SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3334497.

Velez, Maria Alejandra. 2011. “Collective Titling and the Process of Institution Building: The New Common Property Regime in the Colombian Pacific.” Human Ecology 39 (2): 117–29. https://doi.org/10.1007/s10745-011-9375-1.

Verra. 2021a. “Verra REDD+ Project Summary - Project 1392.” Verra: Standards for a Sustainable Future. January 28, 2021. https://registry.verra.org/app/projectDetail/VCS/1392.

———. 2021b. “Verra Verified Carbon Standard Registry Search Page.” Verra: Standards for a Sustainable Future. January 28, 2021. https://registry.verra.org/app/search/VCS?programType=ISSUANCE&exactResId=1566.

———. 2021c. “Verra Verified Carbon Standard Search Page - REDD+ Colombia.” Verra: Standards for a Sustainable Future. January 28, 2021. https://registry.verra.org/app/search/VCS?programType=ISSUANCE&exactResId=1566.

———. 2021d. “Verra - World’s Most Widely Used Standard for Carbon Offset Credits Strengthened to Advance Forest Preservation and Restoration.” Verra (blog). March 4, 2021. https://verra.org/worlds-most-widely-used-standard-for-carbon-offset-credits-strengthened-to-advance-forest-preservation-and-restoration/.

Villa, William. 2000. “Movimiento Social de Comunidades Negras En El Pacífico Colombiano.” In Geografía Humana de Colombia : Los Afrocolombianos. Tomo VI | Banrepcultural.Org, edited by Adriana Maya. Bogotá, Colombia. http://www.banrepcultural.org/blaavirtual/geografia/Afrodescendant/indice.

Visseren-Hamakers, Ingrid J, Constance McDermott, Marjanneke J Vijge, and Benjamin Cashore. 2012. “Trade-Offs, Co-Benefits and Safeguards: Current Debates on the Breadth of REDD+.” Current Opinion in Environmental Sustainability, 4/6 Climate systems, 4 (6): 646–53. https://doi.org/10.1016/j.cosust.2012.10.005.

Volckhausen, Taran. 2019. “Colombian Investors Push Pacific Port Project, Threatening Biodiversity Hotspot.” Mongabay Environmental News, July 18, 2019. https://news.mongabay.com/2019/07/colombian-investors-push-pacific-port-project-threatening-biodiversity-hotspot/.

Wade, Peter. 1995. “The Cultural Politics of Blackness in Colombia.” American Ethnologist 22 (2): 341–57.

———. 1996. “Identidad y Etnicidad.” In Pacífico, Desarrollo o Diversidad? Estado, Capital y Movimientos Sociales En El Pacífico Colombiano, edited by Arturo Escobar and Alvaro Pedrosa, 283–98. Serie Ecológica, no. 11. Santafé de Bogotá: CEREC : ECOFONDO.

———. 1998. “La Construcción de La Etnicidad: Comunidades Negras En Colombia.” ICAN-Colciencias, Bogotá.

———. 2009. “Defining Blackness in Colombia.” Journal de La Société Des Américanistes 95 (95–1): 165–84. https://doi.org/10.4000/jsa.10783.

Wainwright, Carla, and Walter Wehrmeyer. 1998. “Success in Integrating Conservation and Development? A Study from Zambia.” World Development 26 (6): 933–44. https://doi.org/10.1016/S0305-750X(98)00027-8.

Weisse, Mikaela, and Liz Goldman. 2019. “The World Lost a Belgium-Sized Area of Primary Rainforests Last Year.” Global Forest Watch Blog (blog). April 25, 2019. https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year.

Werksman, Jacob. 1998. “The Clean Development Mechanism: Unwrapping the Kyoto Surprise.” Review of European, Comparative & International Environmental Law 7: 147–58.

West, Robert C. 1957. The Pacific Lowlands of Colombia; a Negroid Area of the American Tropics. Louisiana State University Studies. Social Science Series, no. 8. Baton Rouge: Louisiana State University Press.

Westholm, Lisa, Robin Biddulph, Ida Hellmark, and Anders Ekbom. 2011. “REDD+ and Tenure: A Review of the Latest Developments in Research, Implementation and Debate.” Focali Report 2.

Williams, Caroline. 2004. Between Resistance and Adaptation: Indigenous Peoples and the Colonisation of the Chocó, 1510-1753. Liverpool Latin American Studies, new ser., 5. Liverpool: Liverpool University Press.

Williams, Lauren. 2013. “Emerging REDD+ Programs Need Additional Emphasis on Land Tenure.” Washington, D.C.: World Resources Institute. https://www.wri.org/insights/emerging-redd-programs-need-additional-emphasis-land-tenure.

Wilshusen, Peter R. 2003. “Territory, Nature, and Culture: Negotiating the Boundaries of Biodiversity Conservation in Colombia’s Pacific Coastal Region.” In Contested Nature: Promoting International Biodiversity with Social Justice in the Twenty-First Century. SUNY Press.

Wily, Liz Alden. 2011. “Customary Land Tenure in the Modern World.” Rights to Resources in Crisis. http://dlc.dlib.indiana.edu/dlc/handle/10535/7713.

Wollenberg, Eva, and Oliver Springate-Baginski, eds. 2010. “Introduction.” In REDD, Forest Governance and Rural Livelihoods: The Emerging Agenda. Bogor, Indonesia: CIFOR.

Wong, Grace Yee, Cecilia Luttrell, Lasse Loft, Anastasia Yang, Thuy Thu Pham, Daisuke Naito, Samuel Assembe-Mvondo, and Maria Brockhaus. 2019. “Narratives in REDD+ Benefit Sharing: Examining Evidence within and beyond the Forest Sector.” Climate Policy 19 (8): 1038–51. https://doi.org/10.1080/14693062.2019.1618786.

Woodall, C. W., B. F. Walters, J. W. Coulston, A. W. D’Amato, G. M. Domke, M. B. Russell, and P. A. Sowers. 2015. “Monitoring Network Confirms Land Use Change Is a Substantial Component of the Forest Carbon Sink in the Eastern United States.” Scientific Reports 5 (December): 17028. https://doi.org/10.1038/srep17028.

World Bank. 2008. Decentralization in Client Countries: An Evaluation of the World Bank Support: 1990-2007. http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-7635-5.

World Resources Institute. 2019. “Forest Monitoring Designed for Action | Global Forest Watch.” Global Forest Watch. 2019. https://www.globalforestwatch.org/.

Wouters, Mieke. 2001. “Derechos Étnicos Bajo Fuego: El Movimiento Campesino Negro Frente a La Presión de Grupos Armados En El Chocó. El Caso de La ACIA.” In Acción Colectiva, Estado y Etnicidad En El Pacífico Colombiano, edited by Mauricio Pardo, 1. ed. Bogotá: Instituto Colombiano de Antropología e Historia : Colciencias.

Wunder, Sven. 2005. Payments for Environmental Services: Some Nuts and Bolts. Vol. 42. CIFOR Jakarta, Indonesia. http://theredddesk.org/sites/default/files/resources/pdf/2012/payment-ecosystem-services-02.pdf.

WWF. 2013. “REDD+ People: Interview with José Absalón Suárez Solís | WWF.” WWF. July 9, 2013. http://wwf.panda.org/wwf_news/?209348/Jos-Absaln-Surez-Sols.

Appendix: Governance Survey Results

Table A1. Knowledge of and support for the Governing Board of the Community Council

	% of respondent answers from Los Cocos, BIOREDD+ participant. n=131 (95% Confidence Interval)	% of respondent answers from La Hormiga, not BIOREDD+ participant. n=116 (95% Confidence Interval)	Difference (Los Cocos-La Hormiga)
Do you know what the Governing Board Does?**			
Yes	22.14% (16.73%-27.53%)	32.76% (26.22%-39.30%)	-10.62%
No	66.41% (60.27%-72.55%)	32.76% (26.22%-39.30%)	33.65%*
Neither yes or no	4.58% (1.88%-7.32%)	11.21% (6.81%-15.59%)	-6.63%
Doesn't know or doesn't answer	6.87% (3.59%-10.17%)	22.41% (16.60%-28.22%)	-15.54%*
Do you support the work of the Governing Board?**			
Yes	25.95% (20.25%-31.65%-)	50.00% (43.03%-56.97%)	-24.05%*
No	52.67% (46.18%-59.16%)	25.00% (18.97%-31.03%)	27.67%*
Neither yes or no	16.03% (11.26%-20.80%)	18.10% (12.73%-23.47%)	-2.07%
Doesn't know or doesn't answer	5.34% (2.42%-8.26%)	2.59% (0.32%-4.66%)	2.76%
Do you trust the Governing Board?**			
Yes	33.59% (27.45%-39.73%)	50.00% (43.03%-56.97%)	-16.41%*
No	45.80% (39.32%-52.28%)	31.03% (24.58%-37.48%)	14.77%*
Neither yes or no	16.03% (11.26%-20.80%)	11.21% (6.81%-15.59%)	4.82%
Doesn't know or doesn't answer	4.58% (1.86%-7.30%)	7.76% (4.03%-11.49%)	-3.18%
Are you satisfied with the work that the Governing Board has done in your village?**			
Yes	37.40% (31.11%-43.69%)	49.14% (42.17%-56.11%)	-11.73%
No	42.75% (36.31%-49.17%)	28.45% (22.16%-34.74%)	14.30%*
Neither yes or no	13.74% (9.26%-18.22%)	14.66% (9.73%-19.59%)	-0.91%
Doesn't know or doesn't answer	6.11% (2.99%-9.21%)	2.59% (.38%-4.8%)	3.52%
Do you feel supported by the Governing Board?**			
Yes	50.38% (43.88%-56.88%)	70.69% (64.35%-77.03%)	-20.31%*
No	32.06% (25.99%-38.13%)	18.97% (13.51%-24.43%)	13.10%*
Neither yes or no	9.92% (6.03%-13.81%)	4.31% (1.48%-7.14%)	5.61%
Doesn't know or doesn't answer	7.63% (4.18%-11.08%)	1.72% (0%-3.53%)	5.91%

*Statistically significant difference between responses in the two communities, using 95% Confidence Interval
**The difference between River communities in one or more of their answers to this question was statistically significant.

Table A2. Participation in Community Council Processes

	% of respondent answers from Los Cocos, BIOREDD+ participant. n=131 (95% Confidence Interval)	% of respondent answers from La Hormiga, not BIOREDD+ participant. n=116 (95% Confidence Interval)	Difference (Los Cocos-La Hormiga)
How often do you participate in the General Assembly elections?**			
Always	17.56% (12.61-22.50%)	37.93% (31.17-44.69%)	-20.37%*
Normally	5.34% (2.42-8.27%)	8.62% (4.71-12.53%)	-3.28%
Sometimes	30.53% (24.55-36.52%)	33.62% (27.04-40.20%)	-3.09%
Rarely	2.29% (0.35-4.24%)	3.45% (0.91-5.99%)	-1.16%
Never	34.35% (28.18-40.53%)	15.52% (10.47-20.56%)	18.83%*
Don't Know/Don't Answer	0.00% (0.00-0.00%)	0.86% (0-2.15%)	-0.86%
How often do you participate in elections for your Village Committee?**			
Always	23.66% (18.14-29.19%)	47.41% (40.46-54.37%)	-23.75%*
Normally	6.11% (2.99-9.22%)	12.07% (7.53-16.61%)	-5.96%
Sometimes	41.98% (35.57-48.40%)	22.41% (16.60-28.22%)	19.57%*
Rarely	4.58% (1.86-7.30%)	7.76% (4.03-11.49%)	-3.18%
Never	21.37% (16.04-26.70%)	6.90% (3.37-10.43%)	14.48%*
Don't Know/Don't Answer	0.00% (0-0%)	2.59% (0.37-4.80%)	-2.59%*
How often do you participate in community meetings organized by the Village Committee?**			
Always	32.82% (26.72-38.93%)	40.52% (33.68-47.36%)	-7.69%
Normally	7.63% (4.18-11.09%)	17.24% (11.98-22.51%)	-9.61%*
Sometimes	46.56% (40.08-53.05%)	29.31% (22.97-35.65%)	17.25%*
Rarely	3.82% (1.33-6.31%)	5.17% (2.09-8.26%)	-1.36%
Never	6.87% (3.58-10.16%)	6.03% (2.72-9.35%)	0.84%
Don't Know/Don't Answer	0.00% (0-0%)	0.86% (0-2.15%)	-0.86%
How often do you participate in projects brought by NGOs or the government to the River?**			
Always	22.90% (17.44-28.36%)	7.76% (4.03-11.49%)	15.14%*
Normally	6.87% (3.58-10.16%)	6.90% (3.37-10.43%)	-0.03%
Sometimes	48.09% (41.59-54.59%)	26.72% (20.56-32.89%)	21.37%*
Rarely	3.82% (1.33-6.31%)	7.76% (4.03-11.49%)	-3.94%
Never	13.74% (9.26-18.22%)	3.45% (0.91-5.99%)	10.29%*
Don't Know/Don't Answer	0.00% (0-0%)	11.21% (6.81-15.60%)	-11.21%*
How often do you participate in *mingas* (community work parties) in the village?**			
Always	58.02% (51.60-64.43%)	74.14% (68.04-80.24%)	-16.12%*
Normally	9.16% (5.41-12.91%)	18.10% (12.74-23.47%)	-8.94%
Sometimes	29.01% (23.11-34.91%)	5.17% (2.09-8.26%)	23.84%*
Rarely	1.53% (0-3.12%)	0.00% (0-0%)	1.53%
Never	2.29% (0.35-4.24%)	0.00% (0-0%)	2.29%*
Don't Know/Don't Answer	0.00% (0-0%)	0.86% (0-2.15%)	-0.86%

*Statistically significant difference between responses in the two communities, using 95% Confidence Interval

**The difference between River communities in one or more of their answers to this question was statistically significant.